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**INDUSTRIAL VOLATILE ORGANIC COMPOUNDS (VOC)
MODEL: REGIONALIZED PROJECTIONS OF
UNCONTROLLED VOC EMISSIONS BY
SOURCE CATEGORY**

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This informal report presents preliminary results of ongoing work or work that is more limited in scope and depth than that described in formal reports issued by the Energy and Environmental Systems Division.

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by

D.W. South, J.F. McDonald, M.J. Bragen, G.A. Boyd,
D.A. Hanson, and D.S. Rothman

Energy and Environmental Systems Division
Policy and Economic Analysis Group

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FOREWORD

Under the auspices of the National Acid Precipitation Assessment Program (NAPAP), activities supporting the preparation of future assessments have been planned and delegated to task groups. Task Group B (TG-B), "Man-Made Sources" (subsequently redesignated Task Group I, "Emissions and Controls"), of the Interagency Task Force on Acid Precipitation is responsible for developing and testing models that can be used to project fuel use and air pollutant emissions by sector. Argonne has participated in the TG-B program since 1984.

The TG-B program is being carried out in two phases. Phase 1 includes development of the models for generation of baseline scenarios. Phase 2 will address the capabilities for modeling emission control scenarios. Under Phase 1, the sector models are being developed and tested. This testing is designed to aid in model development and help prepare the models for use by the task force. Upon completion, the sector models will be incorporated into the TG-B emissions model set and linked to a system of models that provide scenario-consistent input data.

Within the Policy and Economic Analysis Group of Argonne's Energy and Environmental Systems Division, the Energy-Economic Modeling Program is publishing a series of reports that document the steps undertaken to prepare national and regional projections of energy and economic activity required as input to the sector emissions models. This report is part of that series; it documents the methodology used to translate national control forecasts into the specific regional data needed to drive the sector models. Separate reports are being prepared for each sector model because the driver data are highly specific.

Although the driver data for each sector model are different in configuration, a common regionalization scheme is employed. The Argonne Regionalization Activity Module (ARAM) was developed to systematically generate regional forecasts of energy and economic variables required by the sector models in the TG-B emissions model set.

This report focuses on the generation and description of the driver data for the Industrial Volatile Organic Compounds (VOC) model.

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1 INTRODUCTION

In the National Acid Precipitation Assessment Program (NAPAP), Task Group B (TG-B) is responsible for developing and testing models that can be used to project fuel use and air pollutant emissions by energy use sector. As discussed in the Foreword, this work is being carried out in two phases. All activities described in this report have taken place under Phase 1 of the TG-B program. This report addresses one aspect of the system designed to supply energy-economic driver data to the TG-B emissions model set: regionalized projections of uncontrolled industrial VOC emissions by source category. The components of the energy-economic driver module are shown in Fig. 1.

1.1 BACKGROUND AND SCOPE

The Industrial Volatile Organic Compounds (VOC) model, developed by Radian Corp., requires an extensive set of input data to operate.¹ State-level forecasts of uncontrolled VOC emissions for 90 point-source categories and 11 area-source categories are needed for the period 1980 to 2030. Using these forecasts, average annual growth rates covering prespecified time periods are derived for use as inputs to the model. Approximately 25,000 growth rates are required to operate the model.

Projections of state-level uncontrolled VOC emissions by source category are derived from a national forecast of uncontrolled VOC emissions (for each source category), which are themselves generated from either detailed economic data supplied by the Data Resources, Inc., (DRI) Interindustry Service model² or energy data reported in the 1985 National Energy Policy Plan (NEPP).³ The source category determines which data are used to generate the required national forecast: point-source categories use the DRI economic forecast, whereas area-source categories rely principally on energy forecasts contained in the 1985 NEPP.

The process of transforming each national forecast into a corresponding state-level forecast is accomplished through a dynamic regionalization scheme. The Argonne Regionalization Activity Module (ARAM) was developed to systematically generate regional forecasts* of energy and economic variables required by sector models in the TG-B emissions model set. The derivation of the generic regionalization algorithm

*The word "regional" is used to refer to either a single-state or a multistate region.

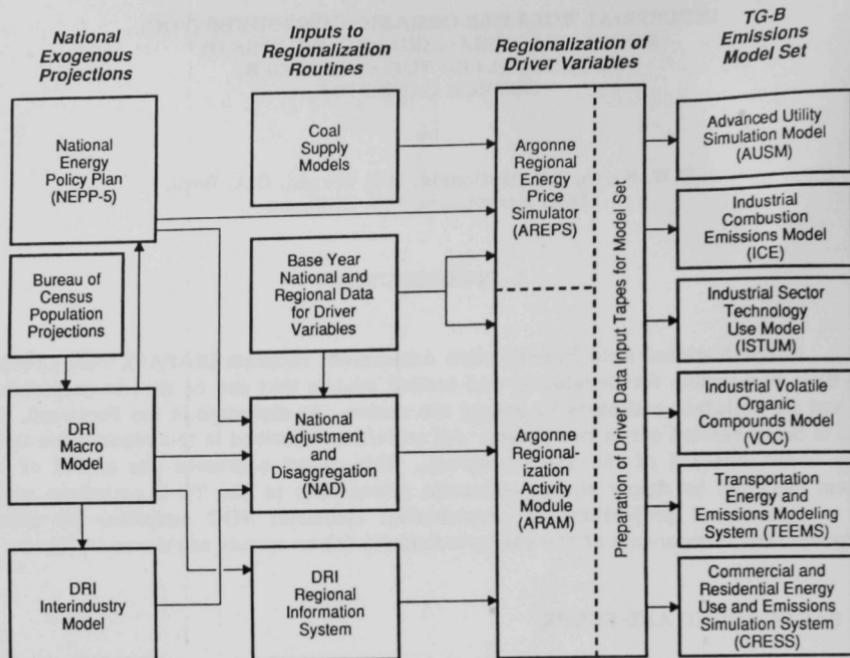


FIGURE 1 Block Diagram of the Energy-Economic Driver Module

embedded in ARAM and its application as part of the energy-economic driver module are discussed elsewhere.⁴ This report documents one specific application of ARAM; it describes the computational steps and data sources used to project national and state-level industrial VOC emissions by source category. Rates of growth in projected uncontrolled emissions are then input to the Industrial VOC model.

1.2 ORGANIZATION

This report describes, in Sec. 2, the configuration of ARAM as used in generating national and state-level projections of uncontrolled VOC emissions by source category. Section 3 presents a more specific delineation of the computational steps and data sources associated with the preparation of these regional forecasts, and Sec. 4 provides some summary statistics and analyses of the regionalized projections prepared by ARAM for input to the Industrial VOC model. Key observations are provided for each scenario considered in the Phase 1 test runs.

Important information regarding the procedures employed is given in several detailed appendices. Appendix A defines the 101 source categories (90 point sources and

11 area sources) simulated in the Industrial VOC model and indicates the Standard Industrial Classification (SIC) codes that make up each category. Appendix B describes the translation of economic projections by SIC code into projections by source category. Problems encountered in generating driver data for the Industrial VOC model are discussed in App. C. Finally, App. D presents selected summary tables of state-level projections by source category. More detailed tables are available upon request.

2 ARGONNE REGIONALIZATION ACTIVITY MODULE

The Argonne Regionalization Activity Module bridges the gap between national and regional modeling. It transforms the control values for energy and economic variables that are produced by national forecasting models into the regional projections required as input to sector models of the TG-B emissions model set. The regional projections are produced with a generic regionalization algorithm based on a modified shift-share approach. Beginning with base-year (1980) values by state, and taking into account national growth, the regional shifts in shares of the desired driver variable are based on a forecast of related economic activity variables, such as employment in the associated industry.* The regionalization algorithm used in ARAM is given below. For exposition purposes, the variable names are specified in terms of those variables used to generate the state-level forecast of uncontrolled VOC emissions, by source category, for input to the Industrial VOC model. The regionalization algorithm is thereby defined as:

$$\text{UNCEMIT}_{r,v}(t) = \text{UNCEMIT}_{n,v}(t) \frac{[\text{UNCEMIT}_{r,v}(1980)][\text{ACTINDEX}_{r,v}(t)]}{\sum [\text{UNCEMIT}_{r,v}(1980)][\text{ACTINDEX}_{r,v}(t)]} \quad (1)$$

where:

$\text{UNCEMIT}_{r,v}(t)$ = uncontrolled VOC emissions in state r by source category v and time t ;

$\text{UNCEMIT}_{n,v}(t)$ = national uncontrolled VOC emissions by source category v and time t ;

$\text{UNCEMIT}_{r,v}(1980)$ = base year (1980) total uncontrolled VOC emissions by state r and source category v ;

$\text{ACTINDEX}_{r,v}(t)$ = activity index (1980 = 1.0) by state r , source category v , and time t . Employment by VOC category is the activity variable indexed. See Sec. 3.2 for a description of how this activity variable is constructed;

v = each point and area source of VOC emissions considered in the Industrial VOC model. Source categories considered are listed and defined in Table A.1;

*For a further description of ARAM, see Ref. 4.

r = single-state or multistate region of the 48 contiguous states of the United States, the District of Columbia being included in Maryland; and

t = year, from 1980 to 2030. The model requires average annual growth rates specified in five-year increments up to 2000 (1980, 1985, 1990, 1995, and 2000) and ten-year increments thereafter (2010, 2020, and 2030).

According to the regionalization algorithm, uncontrolled VOC emissions by source category and state are projected over the 1980-2030 period by multiplying a source-category-specific forecast of national uncontrolled emissions by an emission-weighted shift-share factor. The shift-share factor varies in each state by source category and time through the year 2009. Beyond 2009, state shares are taken to be constant and equal to those that existed in 2009. This assumption was determined through an empirical analysis of state shares for the period 2000 to 2009, computed from DRI Regional Information Service (RIS) forecasts. This analysis found relative stability in state shares after the year 2000 for all variables of interest. Initially, economic and demographic variables are projected to grow at different rates by state; beyond the year 2000, however, the growth-rate projections by state have essentially converged to the national average. The 1980-2000 period can be viewed as a period of adjustment, when some states gain shares and other states lose shares. By 2000, the projected adjustment in shares has been essentially completed.

3 PREPARATION OF PROJECTIONS

The activities involved in preparing state-level projections of uncontrolled industrial VOC emissions are considered in three aggregate steps in this section. Section 3.1 describes the general procedure and defines the variables and data used in ARAM to prepare the national projections; separate discussions address point-source and area-source categories. Section 3.2 provides a parallel discussion for the preparation of state-level projections, and Sec. 3.3 presents some scenario-specific considerations of the input data to ARAM.

As indicated, the generation of state-level projections of uncontrolled VOC emissions, an input to the Industrial VOC model, is an automated procedure contained in ARAM. An ARAM submodule assembles and prepares the input data for the regionalization algorithm. In addition, for this specific case where a national forecast of uncontrolled VOC emissions is not available, a submodule was designed to generate a national projection by source category for input to the regionalization algorithm. The data sources and procedural steps associated with both of these activities are delineated in the following text. Moreover, because different data sources and procedural steps are used for the point-source and area-source categories, the discussion is arranged to reflect these differences.

3.1 NATIONAL PROJECTION PROCEDURE

To project national uncontrolled VOC emissions by source category, the most appropriate energy/economic driver variable is used. For all 90 point-source categories and for three area-source categories, a measure of economic activity is used. The remaining eight area-source categories are driven by fuel use. Section 3.1.1 describes the method for producing the national forecast for the point sources (and three area sources), and Sec. 3.1.2 the method for the remaining eight area sources.

3.1.1 Point Sources

The procedure outlined below is designed to generate a national projection of uncontrolled VOC emissions. It applies to all 90 point-source categories (VOC categories 1-90) and three area-source categories (VOC categories 99-101). The latter are highly correlated with economic activity; therefore, a measure of economic growth is used to project their future levels of uncontrolled emissions.

National uncontrolled VOC emissions by source category in each future year are computed by multiplying the respective uncontrolled emissions in the base year 1980 (from the NAPAP inventory) by an associated economic growth index. This procedure is written as follows:

$$\text{UNCEMIT}_{n,v}(t) = [\text{UNCEMIT}_{n,v}(1980)][\text{ECINDEX}_{n,v}(t)] \quad (2)$$

where:

$UNCEMIT_{n,v}(t)$ = national uncontrolled VOC emissions by source category v and time t;

$UNCEMIT_{n,v}(1980)$ = base-year (1980) uncontrolled VOC emissions at the national level n by source category v taken from the 1980 NAPAP inventory (Version 3). Only total uncontrolled emissions (the sum of uncontrolled emissions from attainment and nonattainment areas) are considered;

$ECINDEX_{n,v}(t)$ = index of national economic growth (1980 = 1.0) by source category v and time t, computed from a forecast generated by the DRI Interindustry Service model (or, where applicable, the DRI macroeconomic model); and

v = VOC categories 1-90 and 99-101.

The variable ECINDEX used in the foregoing procedure is not readily available from a macroeconomic forecast, because it must correspond to the VOC source categories. Macroeconomic forecasts of industrial economic activity are specified in terms of SIC codes. To rectify this definitional problem, two steps are followed: (1) the 1980 NAPAP inventory is used to identify (by SIC code) the industries that are generating emissions in each VOC category and (2) 1980 emissions for each industry (SIC code) in each VOC category are used to calculate emission-based weights.* Because the number of industries (SIC codes) generating VOC emissions in each source category could be quite large, only the top four SIC codes, selected by ranking their emission-based weights, are considered.[†] Then, using the national industrial output projections by four-digit SIC code taken from the DRI Interindustry Service model, ECINDEX is computed by the following formula:

$$ECINDEX_{n,v}(t) = \sum_{i \in i(v)} \left[\frac{w_{i,v}}{\sum w_{i,v}} \right] [INDINDEX_i(t)] \quad (3)$$

*It should be noted that in 32 instances, the NAPAP inventory identifies a nonexistent SIC code as being a VOC emissions source. Also, in a number of cases, emissions in a VOC category are associated with SIC code 0 (zero). Finally, the DRI Interindustry model does not provide a forecast for SIC codes categorized as Public Administration (SIC 90). See App. C for a more complete description of these problems and how they have been resolved.

[†]The emission-based weights in each source category are scaled after selection of the top four SIC codes so that the sum of the weights equals 100%. (The top four SIC codes in each source category are assumed to be representative of that source category and its future economic growth.)

where:

$ECINDEX_{n,v}(t)$ = index (1980 = 1.0) of national VOC activity in source category v and time t;

$W_{i,v}$ = base-year (1980), emission-based weight for SIC code i in source category v, computed from the VOC emissions file in the 1980 NAPAP inventory (Version 3);

$INDINDEX_i(t)$ = index (1980 = 1.0) of national output by SIC code i and time t from the DRI Interindustry Service model; and

$i \in i(v)$ = SIC code i such that i is in source category v.

Equation 3 transforms a measure of national economic activity (i.e., industrial production index) by SIC code into a measure of national economic activity by VOC source category through the use of emission-based weights for each SIC code in a particular source category. Table A.1 lists the SIC codes and rescaled emission-based weights in each relevant VOC category.

The above procedure and data source used to derive the ECINDEX variable apply to all the subject source categories except VOC categories 85 and 99-101. Category 85, industrial boilers, is a classic example of a technology that cross-cuts many industrial groups. Because Eq. 3 computes a weighted-average measure of future economic growth from only the top four SIC codes in the source category, a better measure for VOC category 85 is a general manufacturing index. This better measure is accommodated for by using the JQIND variable, an index of total manufacturing, reported by the DRI macroeconomic model. This data variable (JQIND) is also the best measure of future economic growth in VOC categories 99-101, because these source categories represent a broad cross section of industrial activity that cannot be reliably represented by the weighted average of only four SIC codes.

A numerically ordered list of SIC codes required by the variable INDINDEX is presented in Table B.2, in which more than 400 four-digit SIC codes are identified. The table also illustrates the exercise undertaken to "match" DRI Interindustry Service model input/output categories to the SIC codes of interest. In some cases, there is a one-to-one match; in other cases, more than one DRI category applies to an SIC code; and, in still other cases, the DRI category includes more than just the SIC code of interest. In the latter cases, the SIC code share of the DRI category is indicated, in percentage terms, in the comments column of Table B.2. This share indicates (roughly) the representativeness of the SIC code in the DRI sector. The DRI Interindustry Service model, the matching exercise, and the interpretation of the results are described briefly in the text of App. B.

3.1.2 Area Sources

The VOC area-source categories are identified as 91 through 98 (in Table A.1). The forecast of national uncontrolled VOC emissions in these categories is produced in a

manner similar to that described for point-source categories. Uncontrolled VOC emissions by area-source category in each future year are computed by multiplying the corresponding uncontrolled emissions in the base year 1980 (taken from the 1980 NAPAP inventory) by an associated energy-growth index. This energy-growth index is computed from industrial-fuel-use values reported in the 1985 NEPP. The procedure is written as:

$$\text{UNCEMIT}_{n,v}(t) = [\text{UNCEMIT}_{n,v}(1980)][\text{ENINDEX}_{n,v}(t)] \quad (4)$$

where:

$\text{ENINDEX}_{n,v}(t)$ = index of national energy growth (1980 = 1.0) by category v and time t, derived from data reported in the 1985 NEPP; and

v = VOC categories 91-98 (see Table A.1).

The source of data for variable ENINDEX is the 1985 NEPP. The fuel groups used for each area-source category are identified below, together with the assumptions required for particular categories. Each VOC category is expressed as an index, 1980 = 1.0.

VOC Category	Definition of Data Sources
91	Value in all years equals 1.0*
92	Value of coal solids from 1985 NEPP
93	Value in all years equals 1.0*
94	Value of liquids from 1985 NEPP
95	Value of liquids from 1985 NEPP
96	Value of gases from 1985 NEPP
97	Value of wood from 1985 NEPP
98	Composite index (CI) of boiler fossil fuel use for SIC codes 28, 29, and 33. CI = (0.11)(SIC 28 _t) + (0.68)(SIC 29 _t) + (0.21)(SIC 33 _t). For a description of the boiler fuel-use projections (and methodology) for SIC codes 28, 29, and 33, see Ref. 5.

3.2 STATE-LEVEL PROJECTION PROCEDURE

As does the national projection of uncontrolled VOC emissions, the state-level projections employ different procedures for the point-source and area-source

*The 1985 NEPP industrial coal projections are not distinguished by coal type. Other coal-use projections for the industrial sector showed no growth in the consumption of anthracite coal and coke. For this reason, the base-year (1980) emissions from these two VOC source categories are held constant in all future years; this is denoted by a value of 1.0 for ENINDEX.

categories. Section 3.2.1 describes the method for point sources, and Sec. 3.2.2 addresses the derivation of state-level area-source projections.

3.2.1 Point Sources

Once the national level projection of uncontrolled VOC emissions for point-source categories is prepared, the state-level projection can be generated through the ARAM algorithm (Eq. 1). The following discussion outlines the variable definitions and data sources for use in the ARAM procedure. The process is straightforward, except that the regional activity variable must be redefined. This variable has the same definitional problem as the economic growth index at the national level: it is based on SIC codes, but the Industrial VOC model requires input data based on source category. The regional activity variable obtained from the DRI/RIS model is employment by SIC code. As stated, the Industrial VOC model requires that uncontrolled state-level emissions be provided by VOC source category. Consequently, ARAM must also execute its regionalization scheme by VOC category. The process for transforming the regional activity variable (from SIC code to VOC category) is identified below, following the definitions of the ARAM variables.

The variables and data required to execute ARAM, as described in Sec. 2, are:

$UNCEMIT_{n,v}(t)$ = national uncontrolled VOC emissions by point-source category v and time t , determined by procedures described in Sec. 3.1.1;

$UNCEMIT_{r,v}(1980)$ = base-year (1980) uncontrolled emissions by state r in point-source category v , taken from the 1980 NAPAP inventory (Version 3). Only total uncontrolled emissions (the sum of uncontrolled emissions from attainment and nonattainment areas) are considered;

$ACTINDEX_{r,v}(t)$ = the state-level activity index (1980 = 1.0) used to regionalize uncontrolled VOC emissions in ARAM is employment by VOC category. State-level employment by SIC code is taken from the DRI/RIS projections for the period 1980 through 2009. However, these employment variables must be transformed so that they are denoted by VOC category instead of SIC code; and

v = VOC point source categories 1-90.

As indicated, the required data for variable ACTINDEX are not readily available from the DRI/RIS model; employment by SIC code must be transformed to employment by VOC category. Using the 1980 NAPAP inventory, the SIC codes generating state-level emissions in each VOC category are identified and emission-based weights for each are

calculated.* Because there might be a large number of industries generating state-level VOC emissions in each point-source category, only the top four SIC codes, selected by ranking their emission-based weights, are considered.[†] Then, using the state-level employment projections by SIC code taken from the DRI/RIS model, ACTINDEX is computed by this formula:

$$\text{ACTINDEX}_{r,v}(t) = \sum_{i \in i(v)} \frac{W_{i,v,r}}{\sum W_{i,v,r}} \text{EMPIINDEX}_{i,r}(t) \quad (5)$$

where:

$W_{i,v,r}$ = base-year (1980), state-level r , emission-based weights for SIC code i in point-source category v . These weights are computed from data reported in the 1980 NAPAP inventory;

$\text{EMPIINDEX}_{i,r}(t)$ = index (1980 = 1.0) of employment for each SIC code i in the respective VOC categories, by state r and time t . The employment data are extracted from DRI/RIS projections before indexing; and

$i \in i(v)$ = SIC code i such that i is in source category v .

Equation 5 transforms a measure of regional economic activity (i.e., employment) by SIC code into a measure of regional economic activity by VOC point-source category through the use of emission-based weights for each SIC code in a particular VOC point-source category.[§]

Once the data for each input variable are assembled, the ARAM regionalization algorithm is accessed and state-level projections of uncontrolled VOC emissions by point-source category are generated. Two facts should be noted: (1) two variables, UNCEMIT_{n,v}(t) and ACTINDEX_{r,v}(t), are scenario-specific and (2) the shift-share factor

*As occurred during the preparation of the national forecast, in a number of cases, emissions in a VOC category are associated with SIC code 0. See App. C for a more complete description of these problems and how they have been resolved.

[†]The emission-based weights in each point-source category are scaled after selection of the top four SIC codes so that the sum of the weights equals 100%. (The top four SIC codes in each point-source category are assumed to be representative of that source category and its future economic growth.)

[§]Where a broad measure of economic growth is used at the national level (i.e., index of total manufacturing) for a particular VOC category (e.g., 85), total manufacturing employment in a state is used as the measure of regional economic activity and the procedure delineated in Eq. 5 is not applied.

of the ARAM regionalization algorithm is held constant after 2009 to correspond with the assumption of constant state shares in the post-2009 period. Consequently, the input variable ACTINDEX does not require an explicit extension from 2009 to 2030.

3.2.2 Area Sources

As with point sources, a state-level projection of uncontrolled emissions from area sources can be generated after a corresponding national projection is prepared. In contrast to point sources, a weighting scheme is *not* required in applying the activity variable, ACTINDEX, in the ARAM routine for area sources. This simplifies the procedure considerably. The variable definitions and data sources for use in the ARAM regionalization procedure (Eq. 1) that differ from those already identified are as follows:

$\text{ACTINDEX}_{r,v}(t)$ = state-level activity index (1980 = 1.0) used to regionalize uncontrolled VOC emissions in ARAM (this index is employment by VOC category). Total manufacturing employment by state is used for each area-source category. These employment data are reported in the DRI/RIS projections for the period 1980-2009;⁶ and

v = VOC area-source categories 91-101.

Once the data for each input variable are assembled, the ARAM algorithm is accessed and state-level projections of uncontrolled VOC emissions by area-source category are generated. Two facts should be noted: (1) two variables, $\text{UNCEMIT}_{n,v}(t)$ and $\text{ACTINDEX}_{r,v}(t)$, are scenario-specific and (2) the shift-share factor of the ARAM algorithm is held constant after 2009 to correspond with the assumption of constant state shares in the post-2009 period. Consequently, the input variable ACTINDEX does not require an explicit extension from 2009 to 2030.

3.3 SCENARIO-SPECIFIC CONSIDERATIONS

Three economic-growth scenarios, corresponding to those contained in the 1985 NEPP, are included in the Phase 1 test runs of the TG-B emissions model set planned. These scenarios are termed low, reference, and high. A macroeconomic forecast for the low and reference scenarios was prepared by DRI. For the high-growth scenario, a macroeconomic forecast was prepared by Argonne, but it was limited to selected variables only. It is based on GNP growth rates for the high scenario contained in the 1985 NEPP and economic relationships derived from existing DRI forecasts (low and reference scenarios). The methodology used was approved by the U.S. Department of Energy's Office of Policy, Planning, and Analysis, and has been described elsewhere.⁵

As indicated in Sec. 2, a regional economic activity forecast is required as an input to the ARAM formula; the forecast values are supplied to the variable $\text{ACTINDEX}_{r,i}(t)$. The regional economic activity forecast used in ARAM to regionalize

the national projections of uncontrolled VOC emissions for the low and reference scenarios was prepared by the DRI/RIS model. Because the reference scenario has relatively high economic growth, and the regional distribution of economic activity would undergo only a marginal redistribution of activity shares under a scenario with higher economic growth, the high-growth scenario in the Phase 1 test runs was based on regional shares from the DRI/RIS reference forecast. A separate regional forecast for the high scenario could be prepared in future exercises.

4 OBSERVATIONS

4.1 COMPARISON OF NATIONAL PROJECTIONS BY SCENARIO

National projections of uncontrolled industrial VOC emissions by scenario are presented in Figs. 2-4. Each figure depicts the projected path of uncontrolled VOC emissions for the top six source categories; each of the categories represents more than 4% of uncontrolled VOC emissions in 1980. In total, the six source categories accounted for 76% of all uncontrolled industrial VOC emissions in 1980; by 2030 these source categories are projected to constitute 86% of total VOC emissions, regardless of scenario.

Table 1 summarizes the growth rates and source-category shares for uncontrolled VOC emissions by scenario. Data for the six major categories are presented; five are

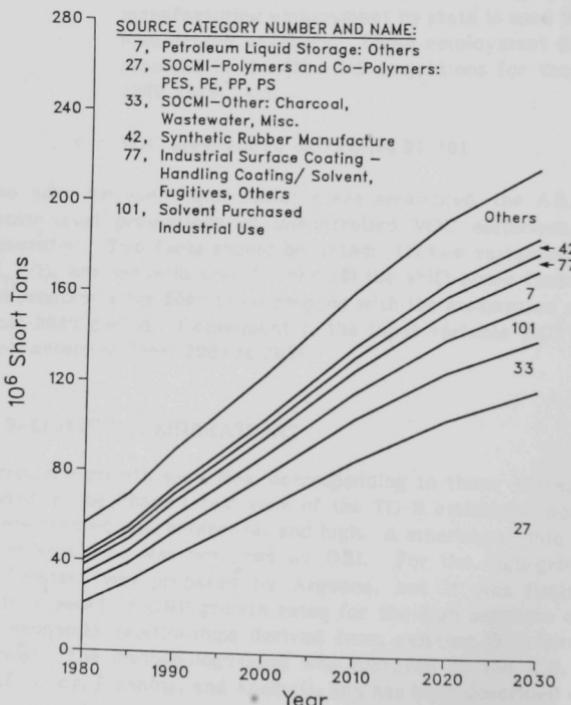


FIGURE 2 Cumulative Projections of Uncontrolled VOC Emissions by Source Category: Reference Scenario

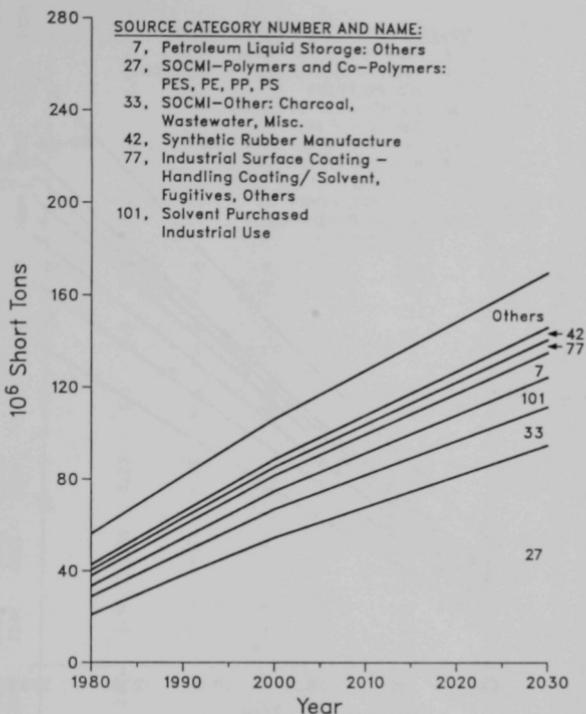


FIGURE 3 Cumulative Projections of Uncontrolled VOC Emissions by Source Category: Low Scenario

point sources, one is an area source. The area source (solvent purchased industrial use) is one of the largest categories of uncontrolled VOC emissions; it is also one of the most diverse categories. Because of its diverse nature, controls for this source category will probably be difficult and expensive to apply. Replacement of the solvents may be the only means to reduce future uncontrolled emissions from this source category.

All three scenarios indicate significant growth in uncontrolled VOC emissions for the six major source categories, reflecting growth in economic activity in the associated industries. Total uncontrolled VOC emissions (101 source categories) in the year 2030 for the reference, low, and high scenarios are projected to be 215.4, 170.6, and 256.3 million short tons, reflecting annual growth rates (1980-2030) of 2.7%, 2.2%, and 3.1%, respectively. The growth is expected to decline over the 50-year 1980-2030 period, however, falling from 4.0% for 1980-2000 to 1.9% for 2000-2030 in the reference scenario. Similar declines are projected for the low and high scenarios, as indicated in Table 1.

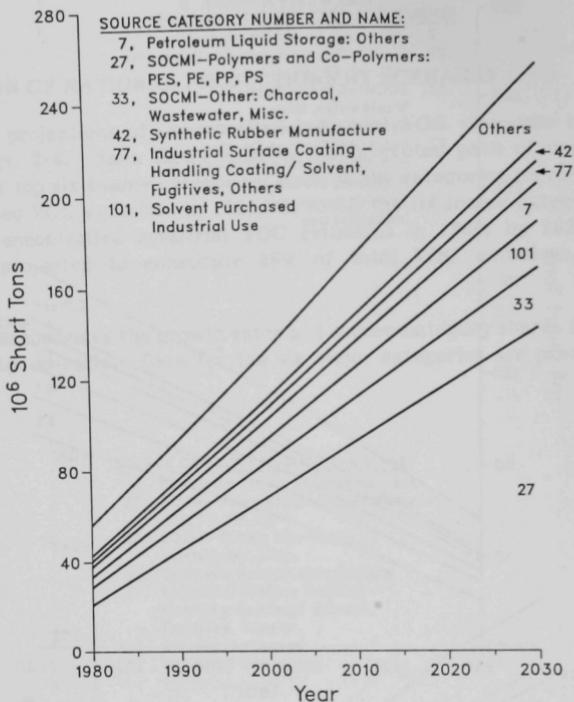


FIGURE 4 Cumulative Projections of Uncontrolled VOC Emissions by Source Category: High Scenario

When the shares of uncontrolled VOC emissions are examined, the differences among scenarios are negligible. Moreover, the shares generally do not change by more than 0.1 percentage point between 2000 and 2030, except for source categories 27, 33, and 101. The shares for categories 27 and 33 differ by more than 5.0%.

Of the six major source categories, the one with the largest annual growth rate is category 27, polymers and copolymers. This point source also represents the largest source of uncontrolled VOC emissions, 37.1% in 1980. In the reference scenario, this source category is projected to grow at an annual rate of 5.7% from 1980 to 2000 and 2.1% from 2000 to 2030, compared with combined annual growth rates of 2.6% and 1.6% for all other categories over the same time periods. The high 1980–2000 growth rate for source category 27 increases its share of total uncontrolled emissions from 37.1% in 1980 to more than 55% by 2030.

TABLE 1 Comparison of Annual Growth Rates and Shares of Uncontrolled VOC Emissions by Scenario for the Six Major Source Categories

Source Category Number and Name	1980 Uncontrolled VOC Emissions (10 ³ short tons)	Annual Change by Scenario and Time Period (%) ^a						Source Category Share by Scenario and Year (%) ^a						
		Reference		Low		High		Reference		Low		High		
		1980-2000	2000-2030	1980-2000	2000-2030	1980-2000	2000-2030	1980	2000	2030	2000	2030	2000	2030
Point sources														
7 Petroleum liquid storage, others	4,541.1	2.76	1.86	2.05	1.53	3.15	2.23	8.1	6.3	6.3	6.4	6.3	6.4	6.4
27 SOCHI - polymers and copolymers; PES, PE, PP, PS	20,890.0	5.73	2.09	4.94	1.86	6.12	2.43	37.1	51.6	55.0	51.5	55.9	51.7	55.1
33 SOCHI - other: charcoal, wastewater, misc.	7,929.8	3.04	1.43	2.30	0.99	3.40	1.75	14.1	11.7	10.3	11.7	9.8	11.6	10.2
42 Synthetic rubber manufacture	2,388.8	2.53	1.80	1.78	1.59	2.91	2.14	4.2	3.1	3.1	3.1	3.1	3.1	3.1
77 Industrial surface coating - handling coating/solvent, fugitives, others	2,427.7	3.09	1.81	2.09	1.47	3.58	2.17	4.3	3.6	3.6	3.4	3.3	3.7	3.6
Area sources														
101 Solvent purchased industrial use	4,596.7	3.53	2.00	2.68	1.71	3.97	2.32	8.2	7.5	7.7	7.3	7.6	7.5	7.8
All VOC sources	56,310.2	4.00	1.87	3.24	1.58	4.38	2.22	-	-	-	-	-	-	-

^aProjected national uncontrolled VOC levels (10⁶ short tons) by scenario for selected years are: reference = 56.3 in 1980, 123.4 in 2000, and 215.4 in 2030; low = 106.5 in 2000 and 170.6 in 2030; high = 132.8 in 2000 and 256.3 in 2030.

Three other source categories -- 33, 77, and 101 -- also exhibit high overall growth rates, but their shares of total uncontrolled VOC emissions are projected to decline rather than increase. Shares of uncontrolled VOC emissions are projected to decline for five of the six source categories between 1980 and 2030; only source category 27 registers an increase. Although source category 101 is projected to have a smaller share of total uncontrolled VOC emissions in 2030 than 1980, the data presented in Table 1 indicate that the share declined considerably between 1980 and 2000 but increased from 2000 to 2030.

These national projections of uncontrolled industrial VOC emissions indicate relatively large annual increases between 1980 and 2030. In particular, the six major source categories are projected to grow at an annual rate of between 2% and 6% depending on the source category, time frame, and scenario. No attempt was made in this report to verify the reasonableness of these forecasts. In addition, the projections are based on the following assumptions: (a) uncontrolled VOC emission levels and industrial economic activity are perfectly correlated (i.e., a 1-to-1 relationship, so that a change in economic activity has a direct and equivalent effect on uncontrolled emissions) and (b) the emissions/economic activity relationship is static over time. Future use of this ARAM subroutine to generate driver data for the Industrial VOC model should investigate the reasonableness of these two assumptions. A growth-rate adjustment could be included in ARAM if required to correct the projections.

4.2 STATE LEVEL PROJECTIONS OF UNCONTROLLED VOC EMISSIONS BY SOURCE CATEGORY

Through the use of ARAM, the national projections described in the foregoing discussion are transformed into state-level projections of uncontrolled VOC emissions. This section focuses on the reference-scenario projections for the six major source categories discussed in the preceding section. Appendix D contains the projections of uncontrolled VOC emissions for all 101 source categories by scenario; more detailed tabulations are obtainable upon request.

Table 2 presents projections of uncontrolled VOC emissions by source category for the years 2000 and 2030 and includes, for comparison, 1980 state values. The table indicates that the states exhibit the same pattern of increased emissions for each category as the nation. However, the rate of this growth does vary among states. Although not reflected in Table 1, a decline in uncontrolled emissions is projected for particular source-category/state combinations.

Table 2 also shows that in each source category, a small number of states account for the majority of uncontrolled VOC emissions and that some states show no emissions for one or more source categories. This situation can be most clearly seen in studying categories 27 (polymers and copolymers) and 42 (synthetic rubber manufacture). In both these categories, more than 90% of total national emissions are contributed by one or two states, whereas more than 30 states contribute no emissions whatever. Table 3 lists the primary state contributions for 97 source categories in the year 1980; data for five source categories do not exist in the 1980 NAPAP inventory. With the exception of category 101 (solvent purchased industrial fuel), eight or fewer

**TABLE 2 Projections of Uncontrolled VOC Emissions under the Reference Scenario by Source Category and State for Selected Years:
1980, 2000, and 2030 (10³ short tons)^a**

State	FIPS Code ^b	Source Category 7			Source Category 27			Source Category 33			Source Category 42			Source Category 77			Source Category 101			
		1980	2000	2030	1980	2000	2030	1980	2000	2030	1980	2000	2030	1980	2000	2030	1980	2000	2030	
Alabama	1	2.47	3.80	6.30	0	0	0	428.91	767.24	1,164.75	0.09	0.18	0.34	2.88	5.88	9.58	80.41	172.78	312.16	
Alaska	2	0	0	0	0	0	0	0	0	0	0.05	0.43	0.64	1.10	2.92	0	0	0	0	
Arizona	4	0.09	0.19	0.36	0	0	0	0.02	0.03	0.05	0.43	0.64	1.11	1.50	3.39	5.29	24.92	66.86	123.95	
Arkansas	5	0.37	0.39	0.66	0	0	0	10.22	21.49	36.29	0	0	0	1.50	5.60	65.54	145.99	260.56		
California	6	44.78	74.94	120.03	0.53	1.64	3.08	8.29	16.53	26.29	0.52	1.01	1.87	120.23	257.93	473.03	426.53	983.97	1,804.19	
Colorado	8	0.19	0.39	0.67	0	0	0	0	0	0.01	0.44	0.67	1.22	7.23	11.98	19.00	36.39	* 95.06	183.32	
Connecticut	9	0.01	0.02	0.04	0.01	0.03	0.05	2.33	6.15	10.58	0.11	0.19	0.33	24.47	44.15	73.51	100.32	209.96	386.86	
Delaware	10	0.43	0.60	0.95	0.13	0.38	0.71	303.38	531.43	818.13	3.17	5.09	8.88	47.70	99.93	158.13	12.92	26.50	47.21	
District of Columbia	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.18	9.79	17.86		
Florida	12	0.04	0.08	0.16	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Georgia	13	0.23	0.49	0.88	0	0	0	3.79	8.19	12.95	0	0	0	0	0	0	0	0		
Hawaii	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Idaho	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Illinois	17	8.66	13.03	21.18	0.33	0.99	1.85	34.00	62.04	95.39	1.01	1.76	3.11	76.27	123.65	213.04	246.77	409.37	733.50	
Indiana	18	1.94	2.59	4.07	0.01	0.05	0.09	9.50	19.45	30.00	2.57	4.81	8.38	229.69	423.80	683.92	172.96	338.98	601.99	
Iowa	19	0	0	0	0.26	0.69	1.29	0.06	0.10	0.15	12.63	24.87	39.58	1.81	2.77	4.73	68.78	114.29	199.09	
Kansas	20	10.42	15.12	23.84	0	0	0	0	0.31	0.53	0.84	0	0	3.78	6.80	11.97	39.67	82.17	154.53	
Kentucky	21	1.02	1.64	2.81	0.51	1.56	2.90	45.54	82.99	135.40	32.65	54.67	100.99	28.33	54.05	95.24	50.48	101.32	185.76	
Louisiana	22	3,917.31	7,012.77	12,292.12	7,388.29	24,366.60	46,958.53	80.99	157.97	249.64	14.45	26.92	48.59	12.27	20.42	35.29	39.96	71.95	130.00	
Maine	23	0.01	0.02	0.04	0	0	0	0	0	0	0	0	0	6.75	11.58	19.01	0.01	21.32	45.52	
Maryland	24	16.70	24.48	38.66	0	0	0	6.74	11.59	17.40	0	0	0	0	13.13	12.18	21.21	65.09	113.91	
Massachusetts	25	0.07	0.13	0.21	0	0	0	0	0.42	0.60	0.81	0	0	0	32.41	38.22	59.46	160.85	349.98	
Michigan	26	19.07	26.47	41.91	0	0	0	0	0	0	0	0	0	0	130.68	214.05	370.83	261.64	489.28	
Minnesota	27	0.06	0.09	0.15	0	0	0	1.78	3.39	5.38	0	0	0	0	11.61	22.00	38.56	92.94	208.90	
Mississippi	28	0	0	0	0	0.01	0.01	49.47	84.68	129.14	0.48	0.72	1.24	209.48	339.89	549.96	130.32	255.59	449.59	
Missouri	29	2.42	3.48	5.38	0	0.01	0.01	0	0	0	0	0	0	0	0	5.08	9.65	17.25		
Montana	30	1.40	2.19	3.64	0	0	0	0	0	0	0	0	0	0	46.46	98.50	174.46	18.82	36.95	
Nebraska	31	0	0.01	0.01	0	0	0	0	0	0	0	0	0	0	1.18	3.24	6.96	2.89	7.37	
Nevada	32	0.01	0.03	0.06	0	0	0	0	0	0	0	0	0	0	17.92	38.70	73.86	27.44	74.27	
New Hampshire	33	3.20	6.86	11.79	0	0	0	0	0	0	0	0	0	0	0.01	14.46	25.33	44.00	200.27	
New Jersey	34	56.85	74.58	120.70	0.65	1.90	3.63	110.91	191.40	301.93	0	0	0	0	0	0	0	0	405.51	
New Mexico	35	1.50	2.43	3.86	0	0	0	0	0.33	0.67	1.06	0	0	0	0	40.49	66.52	115.00	351.82	
New York	36	0	0	0	0	0	0	1,071.77	2,132.06	3,374.56	0	0	0	0	23.00	46.10	79.75	134.85	277.67	
North Carolina	37	0.50	1.02	1.84	0	0	0	0	0	0	0	0	0	0	0	0	4.19	8.85		
North Dakota	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15.81		
Ohio	39	0.85	1.05	1.71	0.46	1.33	2.47	27.24	46.24	69.96	37.89	62.63	108.80	122.83	203.30	340.29	334.15	606.12		
Oklahoma	40	1.20	1.68	2.63	0	0	0	0	1.43	2.33	3.53	0	0	0	543.78	1,104.63	1,949.02	43.28	105.08	
Oregon	41	6.11	10.78	19.00	0	0	0	0	1.63	1.71	2.46	0	0	0	2.34	4.12	8.01	42.68	85.83	
Pennsylvania	42	402.02	478.80	755.91	0.80	2.43	4.69	79.47	129.57	202.13	0.80	0.83	1.31	1.31	2.65	4.82	189.47	285.40	496.98	
Rhode Island	44	0.01	0.02	0.04	0	0	0	7.96	9.27	8.75	0	0	0	0	8.28	10.53	16.18	7.39	69.92	
South Carolina	45	0.10	0.20	0.37	0.01	0.03	0.06	73.21	146.57	231.36	1.31	2.65	4.82	154.18	321.49	538.45	0.02	139.29	244.87	
South Dakota	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.54	14.63		
Tennessee	47	0.53	0.92	1.46	0.41	1.11	2.06	633.59	1,078.37	1,692.06	13.69	24.42	43.64	69.20	122.79	195.81	37.53	176.21	312.91	
Texas	48	3.39	60.26	96.59	13,496.06	39,278.93	71,548.01	4,709.31	8,342.97	12,696.31	2,215.81	3,643.45	6,216.00	109.57	219.17	367.55	12.38	461.05	841.10	
Utah	49	0.21	0.29	0.46	0	0	0	0	0.25	0.45	0.75	0	0	0	0.17	0.40	0.79	17.56	44.76	
Vermont	50	0.01	0.02	0.03	0	0	0	0	0	0	0	0	0	0	2.57	3.85	6.61	8.19	21.20	
Virginia	51	0.35	0.66	1.22	0	0	0	82.21	138.03	216.97	0.78	1.43	2.46	30.48	59.21	104.91	80.63	163.45	289.06	
Washington	53	0.08	0.16	0.27	1.50	6.74	12.66	97.70	269.43	418.66	0	0	0	0	2.90	5.04	9.11	53.63	110.03	
West Virginia	54	0	0	0	0	0	0	0	46.10	84.69	130.89	0	0	0	0	0	0	21.77	38.37	
Wisconsin	55	0.62	0.66	1.11	0	0	0	0	0.88	1.80	2.91	0	0	0	52.33	72.75	134.01	15.26	208.88	
Wyoming	56	0.06	0.06	0.09	0	0	0	0	0.01	0.01	0.02	0	0	0	0	0	0	1.10	2.11	
Total		4,5	9	7,823.40	13,583.21	20,889.97	63,664.42	118,542.09	7,929.75	14,439.98	22,087.56	2,338.82	3,856.95	6,592.69	2,427.72	4,461.12	7,644.05	596.69	9,199.67	16,663.82

^aSource category 7 = petroleum liquid storage, others; source category 27 = SOCMI - polymers and copolymers: PES, PE, PP, PS; source category 33 = SOCMI - other: charcoal, wastewater, misc.; source category 42 = synthetic rubber manufacture; source category 77 = industrial surface coating - handling coating/solvent, fugitives, others; source category 101 = solvent purchased industrial use.

^bFIPS = Federal Information Processing Standards.

TABLE 3 Primary State Contributions to Industrial VOC Source Categories^{a,b}

Source Category	Contributing States and 1980 Shares (%)
1 Mississippi (100%)	
2 Texas (99.6%)	
3 Texas (23.3%), Washington (17.7%), Maryland (13.3%), California (11.2%), New Jersey (7.7%), Ohio (7.0%)	
4 California (69.6%), New Jersey (15.8%)	
5 Maryland (26.3%), California (25.6%), Texas (15.8%), New Jersey (5.7%) Oklahoma (5.4%), Pennsylvania (5.1%)	
6 South Carolina (83.7%), New Jersey (13.5%)	
7 Louisiana (86.3%), Pennsylvania (8.9%)	
8 Texas (51.7%), Louisiana (14.4%), New York (10.2%), California (6.5%)	
9 Texas (31.6%), California (27.3%), Pennsylvania (13.2%), Wyoming (5.0%)	
10 Texas (98.5%)	
11 Washington (42.3%), Georgia (22.1%), Oklahoma (15.7%), Texas (15.7%)	
12 Maryland (31.5%), Alabama (25.5%), Indiana (13.4%), Colorado (7.2%)	
13 Texas (100%)	
14 Texas (51.9%), Oklahoma (28.9%)	
15 Texas (83.2%)	
16 New Jersey (20.6%), Texas (15.9%), South Carolina (14.2%), California (11.7%), North Carolina (7.8%), Pennsylvania (6.5%)	
17 California (34.0%), Ohio (23.7%), Texas (6.4%), Kentucky (5.8%) Pennsylvania (100%)	
18 Texas (89.7%), Ohio (10.3%)	
19 Texas (68.6%), New York (20.0%), Washington (5.6%)	
20 Texas (100%)	
21 Texas (100%)	
22 Texas (100%)	
23 Texas (70.1%), Maryland (14.8%), Louisiana (10.2%)	
24 New Jersey (70.0%), Pennsylvania (21.6%)	
25 Texas (100%)	
26 Texas (94.7%)	
27 Texas (64.6%), Louisiana (35.4%)	
28 Texas (96.7%)	
29 Texas (99.5%)	
30 Illinois (39.2%), Texas (39.0%), Pennsylvania (20.2%)	
31 Texas (25.7%), Louisiana (39.1%), West Virginia 24.5%, California (5.2%)	
32 Michigan (17.2%), Kentucky (13.6%), Ohio (12.4%), North Carolina (10.5%), Texas (7.3%), Virginia (6.3%), Oregon (5.1%)	
33 Texas (59.4%), North Caorlina (13.5%), Tennessee (8.0%), Alabama (5.4%)	
34 Indiana (77.5%), Texas (13.7%)	
35 Texas (76.9%), Virginia (6.8%), Delaware (5.4%)	
36 Virginia (95.3%)	
37 Texas (35.3%), Louisiana (28.5%), Iowa (17.9%), California (5.9%)	
38 Kentucky (62.7%), Indiana (28.9%)	
39 Indiana (99.7%)	
40 Oregon (42.7%), Pennsylvania (26.4%), Maine (12.5%), Delaware (9.8%)	
41 Texas (95.4%)	
42 Texas (94.7%)	
43 Tennessee (37.4%), Texas (36.8%), Maryland (5.9%)	
44 Indiana (22.2%), Ohio (18.0%), Pennsylvania (16.7%), West Virginia (12.7%), Alabama (8.0%), Michigan (7.2%), Texas (5.7%)	
45 Pennsylvania (54.5%), Alabama (15.5%), Ohio (10.6%), Michigan (6.3%)	
46 Indiana (12.5%), Arkansas (12.0%), California (10.8%), Louisiana (10.7%), Washington (8.4%), New Jersey (7.8%), Illinois (6.3%), Alabama (5.7%)	
47 Wisconsin (100%)	
48 South Carolina (22.7%), Missouri (20.0%), Maryland (11.2%), Texas (11.2%), New Jersey (6.8%)	
49 Virginia (100%)	
50 California (66.9%), Illinois (17.4%), Ohio (5.3%)	
51 Tennessee (46.8%), Georgia (28.3%), South Carolina (11.3%)	
52 Virginia (24.7%), Oregon (15.1%), Mississippi (11.6%), Tennessee (7.2%), California (6.9%), Colorado (6.5%), Louisiana (5.5%)	
53 Washington (36.0%), Pennsylvania (29.7%), Virginia (9.4%), Ohio (7.5%), Tennessee (5.5%)	
54 Michigan (32.8%), Pennsylvania (16.3%), Minnesota (7.8%), Texas (6.3%), Indiana (5.5%)	

TABLE 3 (Cont'd)

Source Category	Contributing States and 1980 Shares (%)
56	Michigan (70.4%), Maryland (6.7%)
57	Georgia (45.6%), Michigan (20.2%), Pennsylvania (15.6%), Indiana (7.5%)
58	Missouri (22.0%). New York (12.1%), Kentucky (11.6%), Pennsylvania (11.5%), Michigan (8.4%), California (6.2%), Ohio (6.1%), Maryland (5.7%)
59	Maryland (86.0%)
60	New Jersey (47.0%), Texas (24.7%), New York (11.3%), North Carolina (10.2%)
61	Missouri (49.1%), New Jersey (37.8%), California (10.2%)
62	California (71.9%), Kentucky (6.2%)
63	California (29.2%), Illinois (10.6%), South Carolina (9.1%), Michigan (8.4%), Tennessee (6.7%), Massachusetts (5.6%), Indiana (5.2%)
66	New Mexico (48.0%), Pennsylvania (46.2%), Texas (5.8%)
67	Missouri (79.5%), Minnesota (12.2%), Pennsylvania (5.8%)
68	Connecticut (96.9%)
69	Minnesota (70.4%), Pennsylvania (16.2%), Connecticut (12.8%)
70	Connecticut (82.8%), Pennsylvania (12.4%)
71	Pennsylvania (100%)
72	Pennsylvania (100%)
73	Pennsylvania (49.2%), Texas (35.7%), Missouri (9.2%), Ohio (5.9%)
74	Minnesota (100%)
75	Pennsylvania (100%)
76	Texas (81.8%), Pennsylvania (18.2%)
77	Oklahoma (22.4%), Indiana (9.5%), Missouri (8.6%), Pennsylvania (7.8%), South Carolina (6.4%), Michigan (5.42%), Ohio (5.1%), California (5.0%)
79	Tennessee (23.4%), Pennsylvania (18.3%), Illinois (13.6%), Maryland (11.1%), South Carolina (8.6%), Wisconsin (7.7%), Ohio (5.9%)
80	South Carolina (52.2%), Wisconsin (19.7%), Missouri (17.3%)
81	Pennsylvania (29.0%), South Carolina (21.1%), Wisconsin (14.6%), Illinois (6.7%), North Carolina (5.1%)
82	Illinois (35.7%), Ohio (20.2%), North Carolina (7.5%), California (7.1%)
83	Oklahoma (98.3%)
84	Ohio (8.0%), Texas (7.3%), Georgia (5.9%), Pennsylvania (5.3%), Illinois (5.1%)
85	Texas (26.2%), Massachusetts (15.1%), California (8.0%), Mississippi (6.6%), Tennessee (6.3%), Louisiana (5.3%)
86	Texas (46.8%), New Jersey (32.6%), Mississippi (11.4%), Massachusetts (8.4%)
87	Kansas (32.0%), Texas (25.1%), New Mexico (14.5%), Louisiana (10.6%), Indiana (5.8%), California (5.5%)
88	Texas (20.6%), Wisconsin (16.9%), California (15.8%), Alabama (7.5%), Idaho (6.4%)
89	Connecticut (100%)
90	New Jersey (28.1%), Delaware (25.1%), Pennsylvania (6.2%), Ohio (5.9%), Texas (5.7%), Missouri (5.4%)
92	Missouri (25.0%), Indiana (11.1%), Illinois (7.1%), Kansas (6.9%), Nebraska (6.6%), Iowa (6.4%)
93	Massachusetts (100%)
94	Texas (22.4%), Wyoming (9.5%), New Jersey (7.9%), Kansas (7.4%), Ohio (6.0%), Pennsylvania (5.5%), Connecticut (5.0%)
95	Texas (47.7%), Missouri (17.0%), Montana (9.7%), Washington (6.3%), Colorado (5.1%)
96	Texas (59.7%), Oklahoma (5.9%), Kansas (5.8%)
97	Oregon (78.9%), North Carolina (20.3%)
98	Alabama (100%)
99	Ohio (14.3%), California (10.8%), North Carolina (10.1%), Texas (8.1%), New York (7.5%), Indiana (6.2%), Iowa (5.3%)
100	Ohio (15.3%), Georgia (13.1%), Arizona (11.6%), California (8.8%), New York (8.7%), North Carolina (7.7%), Indiana (6.2%)
101	California (9.3%), New York (7.7%), Ohio (7.3%), Pennsylvania (6.4%), Michigan (5.7%), Illinois (5.4%)
All	Texas (46.7%), Louisiana (21.0%), Indiana (3.5%), California (2.8%), North Carolina (2.4%)

^aIncludes states with 5.0% or more of the uncontrolled 1980 VOC emissions within an individual category and those with 2.0% or more of total 1980 uncontrolled VOC emissions. The NAPAP inventory (Version 3) does not provide 1980 emissions data for source categories 45, 64, 65, 78, and 91. Refer to Table A.1 for source category descriptions.

states contributed more than 70% of total national emissions in each source category. In 25 source categories, more than 90% of uncontrolled VOC emissions were accounted for by one state.

Tables 4 and 5 provide summaries of the projected changes in state shares of the national total in each of the six major source categories, as well as in total national uncontrolled VOC emissions. Only those states with a share greater than 3% of a particular source category and 2% of the national total are included. These tables illustrate that although shifts in the state shares for the source categories do occur, the magnitudes are relatively small. No state that contributed less than 3% to any source category in 1980 is found to contribute more than 3% in 2030. Also, the combined share for the top states in each of the source categories does not change significantly in any of the six categories considered here (see Table 5). In two categories (7, 77), this share rose; in three (33, 42, 101), it decreased; and in one category (27), it remained the same. In all cases, the changes were less $\pm 4\%$.

TABLE 4 Direction of Change (1980-2030) in Projected Uncontrolled VOC Emissions, by State and Source Category, Where State Shares Are Greater than 3%:
Reference Scenario^a

State	Change by Source Category						
	7	27	33	42	77	101	Total ^b
Alabama			-				
California					+	+	-
Delaware			-				
Illinois						-	
Indiana					-	-	-
Louisiana	+	+					+
Massachusetts						+	
Michigan					-	-	
Missouri					-		
New Jersey						-	
New York						-	
North Carolina			+				-
Ohio					-	-	
Oklahoma					+		
Pennsylvania	-				-	-	
South Carolina					+		
Tennessee			-				
Texas	-	-	-	-	+	+	+

^a+ = increase in share, - = decrease in share.

^bIncludes states with shares greater than 2%.

TABLE 5 State Contributions to Uncontrolled Industrial VOC Emissions in Six Major Source Categories for Years 1980 and 2030, Where State Shares Are Greater than 3%: Reference Scenario (%)

State	State Contribution by Source Category and Year													
	7		27		33		42		77		101		Total ^a	
State	1980	2030	1980	2030	1980	2030	1980	2030	1980	2030	1980	2030	1980	2030
Ala.					5.4	5.3								
Calif.									5.0	6.2	9.3	10.8	2.8	2.2
Del.					3.8	3.7					5.4	4.4		
Ill.									9.5	9.0	3.7	3.6	3.5	2.2
Ind.														
La.	86.3	90.5	35.4	39.6								21.0	28.2	
Mass.											3.5	3.8		
Mich.									5.4	4.9	5.7	5.4		
Mo.									8.6	7.2				
N.C.					13.5	15.3							2.4	2.0
N.J.											4.4	4.2		
N.Y.											7.7	7.1		
Ohio									5.1	4.5	7.3	6.5		
Okl.a.									22.4	25.5				
Penn.	8.9	5.6							7.8	6.5	6.4	5.4		
S.C.									6.4	7.1				
Tenn.					8.0	7.7								
Texas			64.6	60.4	59.4	57.5	94.7	94.3	4.5	4.8	4.8	5.1	46.7	48.2

^aIncludes states with shares greater than 2%.

A significant shift does occur, however, in the state shares for total national uncontrolled VOC emissions (Table 5). The share contributed by the top five states (Texas, Louisiana, Indiana, California, and North Carolina) is projected to increase from 76.4% in 1980 to 82.8% in 2030. Most of this shift occurs in Louisiana, where the share of total uncontrolled VOC emissions grows by more than 34%, from 21.0% in 1980 to 28.2% in 2030. With the Texas share increasing to 48.2%, these two states are projected to contribute as large a share of the total national uncontrolled VOC emissions in 2030 as did the top five states in 1980.

Tables 4 and 5 indicate that, without exception, the shares contributed to the individual source categories and the national total by states in the industrial midwest (Illinois, Indiana, Michigan, Ohio, and Pennsylvania) are projected to decline. In most cases, the shares of Louisiana, Texas, Oklahoma, California, and the Carolinas are expected to increase. These changes reflect, in part, the projected shifts in population and industrial activity in the United States over the next 50 years.

Source Category	Change by State					
	T	27	33	42	77	101
Total	100	100	100	100	100	100
Texas	48.2	48.2	48.2	48.2	48.2	48.2
Louisiana	21.0	28.2	28.2	28.2	28.2	28.2
Indiana	10.0	9.0	8.0	7.0	6.0	5.0
California	7.0	7.0	7.0	7.0	7.0	7.0
North Carolina	5.0	5.0	5.0	5.0	5.0	5.0
Oklahoma	3.0	3.0	3.0	3.0	3.0	3.0
Illinois	2.0	1.8	1.8	1.8	1.8	1.8
Michigan	1.8	1.8	1.8	1.8	1.8	1.8
Ohio	1.8	1.8	1.8	1.8	1.8	1.8
Pennsylvania	1.8	1.8	1.8	1.8	1.8	1.8
Other	1.8	1.8	1.8	1.8	1.8	1.8

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APPENDIX A:**INDUSTRIAL VOC MODEL: DEFINITION OF SOURCE
CATEGORIES AND COMPONENT SIC CODES***

*This appendix lists 90 point-source and 11 area-source categories, together with their definitions. It also displays the ranking of SIC codes that make up each VOC point-source category at the national level; only the top four SIC codes are presented in order of their rescaled emissions shares.

Definition of Industrial VOC Source Categories and National Emission-Based Weights

No.	Source Category Description	Group 1		Group 2		Group 3		Group 4	
		SIC	Emission Share (%)						
Point sources									
1	On-shore crude oil production	2911	76.4	1311	23.6	0	0.0	0	0.0
2	On-shore natural gas production	1311	91.1	1321	7.6	2813	1.2	29	0.1
3	Petroleum liquid storage ≥1.5 psia: floating roof - standing loss	5171	67.2	2911	26.5	4612	4.2	46	2.1
4	Petroleum liquid storage ≥1.5 psia: floating roof and V.V.S. - withdrawal loss	2911	68.2	4612	16.7	5171	9.1	49	5.9
5	Petroleum liquid storage ≥1.5 psia: fixed roofs	2911	48.3	5171	43.0	4612	5.4	13	3.3
6	Petroleum liquid storage ≥0.5 psia: heptane, etc.	2911	91.3	2951	4.4	5171	2.8	28	1.5
7	Petroleum liquid storage, others: kerosene, dist. fuel, ISO-octane, toluene, etc.	5171	86.6	2911	11.4	1321	1.0	28	0.9
8	Pet. refineries - fugitives: benzene & other VOC	2911	94.5	1311	3.5	1381	1.4	51	0.6
9	Pet. refineries - process drains/wastewater	2911	97.4	1321	1.1	2879	1.0	28	0.5
10	Pet. refineries - distillation operations	2911	99.9	4613	0.1	0	0.0	0	0.0
11	Pet. refineries - process unit blowdown	2911	100.0	1321	0.0	0	0.0	0	0.0
12	Pet. refineries - asphalt processing: blowing, roofing, concrete	2911	75.9	2951	15.9	3273	4.5	29	3.6
13	Pet. refineries - lube oil manufacture	2911	100.0	0	0.0	0	0.0	0	0.0
14	Pet. refineries - others: cracking units, cooling towers, RV, etc.	2911	99.0	1311	0.8	1321	0.1	28	0.1

No.	Source Category Description	Group 1		Group 2		Group 3		Group 4	
		SIC	Emission Share (%)						
15	Pet. marketing - ship/barge/tanker vessels	5161	70.8	2911	19.2	5171	4.2	28	5.8
16	Gasoline bulk terminals - tank truck transfer	5171	41.7	2911	24.3	2823	17.8	28	16.1
17	Petroleum bulk terminals - others transfer	5171	56.2	2911	17.2	9711	14.9	46	11.7
18	Petroleum bulk plants - tank truck transfer	2999	100.0	0	0.0	0	0.0	0	0.0
19	SOCMI - vol. storage	2821	84.6	5161	13.7	2869	1.7	0	0.0
20	SOCMI - fugitives: benzene & other VOC	2873	68.5	3573	18.7	2421	5.3	28	7.5
21	SOCMI - ethylene production	2869	100.0	0	0.0	0	0.0	0	0.0
22	SOCMI - acrylonitrile production	2869	100.0	0	0.0	0	0.0	0	0.0
23	SOCMI - vinyl chloride/EDC/PVC production	2869	68.8	2821	30.1	3011	0.6	30	0.5
24	SOCMI - maleic acid/anhydride production	2821	70.4	2865	22.1	2911	4.5	24	3.0
25	SOCMI - ethyl benzene/styrene production	2865	100.0	2869	0.0	0	0.0	0	0.0
26	SOCMI - air oxidation reaction processes	2869	93.2	2823	3.8	2865	1.9	28	1.1
27	SOCMI - polymers & copolymers: PES,PE,PP,PS	2821	100.0	2822	0.0	2865	0.0	26	0.0
28	SOCMI - polymers & copolymers: others	2821	99.7	3613	0.1	7391	0.1	28	0.1
29	SOCMI - other reactor processes	2869	95.0	2865	2.4	2992	2.1	28	0.5
30	SOCMI - distillation operations	2869	39.2	2821	39.1	2865	20.2	29	1.5
31	SOCMI - carbon black production	2895	95.0	2899	4.7	1311	0.3	32	0.0

No.	Source Category Description	Group 1		Group 2		Group 3		Group 4	
		SIC	Emission Share (%)						
32	SOCMI - transfer/marketing: truck & rail cars	3079	31.2	3714	27.5	2641	17.5	28	23.7
33	SOCMI - other: charcoal, wastewater, misc.	2869	56.0	2824	12.8	2818	12.7	28	18.6
34	Pharmaceutical synthesis	2834	91.7	2833	8.3	0	0.0	28	0.0
35	Synthetic fiber manufacture - solvent spin	2824	85.9	2821	6.3	2823	3.2	22	4.7
36	Synthetic fiber manufacture - others	2823	98.8	2824	0.9	2261	0.3	0	0.0
37	Inorganic chemical manufacture	2819	55.6	2873	27.2	2869	7.3	28	9.9
38	Fermentation processes: alcohol products	2085	96.7	2083	1.4	2082	1.1	20	0.8
39	Vegetable oil processing	2048	99.5	2074	0.2	2042	0.2	20	0.1
40	Plastic products manufacture	3079	55.9	2641	34.8	2952	7.7	30	1.6
41	Rubber tire manufacture	3011	98.6	2822	1.4	3537	0.0	75	0.0
42	Synthetic rubber manufacture	2822	98.1	3011	0.7	2821	0.6	28	0.6
43	Other chemical: soaps/detergents, explosives, coatings, agriculture	2892	37.9	2869	37.1	2851	6.0	28	19.0
44	Iron & steel manufacture - coke ovens	3312	95.3	3310	3.7	2800	1.1	0	0.0
45	Iron & steel manufacture - coke oven by-product recovery	0	0.0	0	0.0	0	0.0	0	0.0
46	Iron & steel manufacture - others	3312	77.8	3321	10.9	3310	6.5	50	4.8
47	Primary/secondary metals & electrical	3353	20.4	3321	18.8	3497	18.6	33	42.2
48	Secondary metals - heat treating	3494	99.4	3462	0.6	0	0.0	0	0.0

No.	Source Category Description	Group 1		Group 2		Group 3		Group 4	
		SIC	Emission Share (%)						
49	Fabricated metal products	3411	38.5	3621	23.6	3441	14.1	34	23.8
50	Tobacco products	2111	100.0	0	0.0	0	0.0	0	0.0
51	Food products	7240	46.9	2074	20.8	2040	16.3	20	16.0
52	Textile mill & leather products	2823	48.8	3079	29.9	2295	8.1	22	13.2
53	Lumber and wood products	2511	31.5	2436	16.3	2499	16.2	24	36.1
54	Paper and allied products	2621	47.3	2611	41.6	2631	8.0	26	3.1
55	Mineral products - stone, clay, glass	3264	30.0	3229	21.8	3221	21.6	32	26.6
56	In-process fuel use - coal	2911	71.8	3241	16.3	1211	5.5	28	6.4
57	In-process fuel use - fuel oil	2911	59.2	3264	17.8	3321	9.2	28	13.8
58	In-process fuel use - process and natural gas	3312	43.7	3411	18.0	2641	17.1	34	21.2
59	In-process fuel use - other: coke, wood, waste, etc.	5171	92.2	3711	3.1	2861	2.1	34	2.6
60	Other industrial processes: mining & misc.	2911	32.8	2818	26.0	5171	19.5	28	21.7
61	Adhesives manufacture	2891	52.7	2842	37.5	2821	8.6	26	1.1
62	Dry cleaning - petroleum solvent	7212	43.2	7216	34.2	7218	12.1	72	10.5
63	Organic solvent metal cleaning and degreasing	3861	32.3	9711	20.2	3714	19.6	35	28.0
64	Industrial surface coating - large appliances	0	0.0	0	0.0	0	0.0	0	0.0
65	Industrial surface coating - magnet wire	0	0.0	0	0.0	0	0.0	0	0.0

No.	Source Category Description	Group 1		Group 2		Group 3		Group 4	
		SIC	Emission Share (%)						
66	Industrial surface coating - auto & light truck	3711	51.9	3241	48.0	7535	0.1	0	0.0
67	Industrial surface coating - cans	3411	99.0	3429	0.9	3211	0.1	0	0.0
68	Industrial surface coating - metal coils	3429	96.9	3479	3.1	0	0.0	0	0.0
69	Industrial surface coating - paper	2641	81.7	3079	10.1	2649	6.0	26	2.1
70	Industrial surface coating - fabric & film: vinyl, urethane, and others	2295	84.1	3079	10.9	2261	3.3	22	1.7
71	Industrial surface coating - metal furniture	2522	58.7	2514	36.5	3499	4.8	0	0.0
72	Industrial surface coating - flat wood products	2511	60.5	2599	24.1	2521	14.6	25	0.8
73	Industrial surface coating - other metal/wood products	3679	33.8	3585	27.0	3411	16.3	34	22.8
74	Industrial surface coating - plastic parts: business machines & others	3679	95.9	2821	3.9	3861	0.2	0	0.0
75	Industrial surface coating - large ships	3731	100.0	0	0.0	0	0.0	0	0.0
76	Industrial surface coating - large aircraft	3728	52.4	3721	47.6	0	0.0	0	0.0
77	Industrial surface coating - handling coating/ solvent, fugitives, and others	3711	42.2	3411	25.9	3400	31.9	0	0.0
78	Graphic arts - rotogravure publication printing	0	0.0	0	0.0	0	0.0	0	0.0
79	Graphic arts - rotogravure packaging printing	2754	63.7	2751	17.5	3079	5.2	26	13.6
80	Graphic arts - offset lithography printing	2752	78.0	3411	17.7	2751	2.5	27	1.8
81	Graphic arts - flexographic printing	2751	69.0	2643	12.8	2649	8.7	26	9.5

No.	Source Category Description	Group 1		Group 2		Group 3		Group 4	
		SIC	Emission Share (%)						
82	Graphic arts - other: letterpress, other gravure, etc.	2751	56.0	2754	16.1	2653	10.7	26	17.2
83	Misc. solvent use: dyeing & extraction & fugitives	3041	96.4	3661	2.3	2641	1.1	37	0.2
84	Utility boilers	4911	92.6	2631	2.3	2421	2.2	49	3.0
85	Industrial boilers ^a	-	-	-	-	-	-	-	-
86	Industrial space heaters	2869	63.1	4952	14.9	2642	11.4	65	10.7
87	Stationary internal combustion	4922	43.0	3334	21.5	1311	20.3	49	15.2
88	Solid waste disposal - oxidation	4953	29.4	2421	25.2	2499	21.9	28	23.5
89	Waste solvent recovery	2869	44.4	2834	44.4	3634	11.1	0	0.0
90	Not classified - miscellaneous	2815	50.5	2899	17.5	2911	14.2	27	17.9
Area sources^b									
91	Industrial anthracite coal	-	-	-	-	-	-	-	-
92	Industrial bituminous coal	-	-	-	-	-	-	-	-
93	Industrial coke	-	-	-	-	-	-	-	-
94	Industrial distillate oil	-	-	-	-	-	-	-	-
95	Industrial residual oil	-	-	-	-	-	-	-	-
96	Industrial natural gas	-	-	-	-	-	-	-	-

No.	Source Category Description	Group 1		Group 2		Group 3		Group 4	
		SIC	Emission Share (%)						
97	Industrial wood	-	-	-	-	-	-	-	-
98	Industrial process gas	-	-	-	-	-	-	-	-
99	Industrial onsite incineration	-	-	-	-	-	-	-	-
100	Industrial open burning	-	-	-	-	-	-	-	-
101	Solvent purchased industrial use	-	-	-	-	-	-	-	-

^aOnly one measure of future economic growth is used in this category, the index of total manufacturing (JQIND) reported in the DRI macroeconomic model.

^bSee Sec. 3.1.2 for the measures used to forecast emissions in area-source categories 91-98. Only one measure is linked with each category. Emissions forecasts for categories 99-101 rely on the data variable, JQIND (the index of total manufacturing), reported by the DRI macroeconomic model.

APPENDIX B:**PROVISION OF ECONOMIC ACTIVITY PROJECTIONS BY STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE**

APPENDIX B:

PROVISION OF ECONOMIC ACTIVITY PROJECTIONS BY STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE

This appendix describes the efforts to translate the 403 sectoral classification codes reported in the DRI Interindustry Service model (an input/output model) into SIC codes required for the ARAM submodule that generates the input data for the Industrial VOC model. (As described in the report, these projections by SIC code are subsequently reaggregated into VOC categories.)

The Industrial VOC model being incorporated into the TG-B emissions model set for the Phase 1 test runs has an extensive list of detailed input requirements: state-level growth rates in uncontrolled VOC emissions for 101 source categories and 7 time periods. To generate the national forecast of uncontrolled VOC emissions, measures of growth in economic activity for some 445 sectors are required at the two-, three-, and four-digit SIC code level and covering the period 1980-2030.* This appendix discusses one part of the exercise: the use of national DRI Interindustry Service model projections and the method of reconciling the different coding schemes (DRI classification codes versus SIC codes). A brief description of the DRI Interindustry Service model precedes the discussion.

B.1 THE DRI INTERINDUSTRY SERVICE MODEL^{1,2}

The DRI Interindustry Service model is a standard (Leontief) input-output model. It has 403 sectors and generally produces projections at the four-digit SIC code level. An input-output model may be thought of as a snapshot of economic activity that incorporates basic double-entry bookkeeping. Consider the basic three-sector input-output model in Table B.1. The top row (Agriculture) indicates that this sector sells \$50 worth of its output to itself (e.g., feed grains, seed) and that final demand for agricultural products is \$100. The manufacturing sector (second row) sells to all three sectors and produces for final demand. The total outputs of the sectors are shown in the far right-hand column. The first column of numbers (Ag.) shows the inputs to the agriculture sector. Inputs that are purchased from all three sectors plus the value added (wages, interest, profits, rents) equal the total input. The total value of input equals the total value of output. Furthermore, final demand for the whole economy equals value added for the whole economy.

The use of such a snapshot for projections works as follows. First a set of final demands is projected (by the DRI macroeconomic model, for example). Then the input structures for each industry are calculated in percentage terms (for example, agricultural output requires 33% agricultural inputs, 17% manufacturing inputs, 17% service inputs, and 33% value added). These percentages are known as technical

*The DRI 403-sector Interindustry Service model forecast used to derive these economic-activity growth rates is not reproduced in this report but is available upon request.

TABLE B.1 Basic Input-Output Model (\$)

Selling Industry	<u>Purchasing Industry</u>			Final Demand	Total Output
	Ag.	Mfg.	Serv.		
Agriculture	50	0	0	100	150
Manufacturing	25	100	25	50	200
Services	25	50	10	15	100
Value added	50	50	65	165	
Total input	150	200	100		450

coefficients and are assumed to be constant in a given projection exercise. The projections of total output for the sectors simultaneously take into account the interindustry demands, or technical coefficients. The model can also project value added in each sector and total interindustry demands.

The DRI Interindustry Service model provides the following outputs for 403 sectors:

- Total output (nominal and real),
- Price index,
- Employment, and
- Productivity.

The basic projection is of total output, but additional features of the model system can be called upon to provide the other three variables. The 403 DRI sectors are incorporated into standard industry categories as follows:

<u>Standard Industry Sector</u>	<u>No. of DRI Sectors Included</u>
Agriculture	13
Mining	7
Construction	24
Manufacturing	318
Transportation and communication	9
Utilities	3
Trade	2
Finance, insurance, and real estate	5
Services	16
Government and other	6
Total	403

Most of the manufacturing sectors in the DRI Interindustry Service model are the same as four-digit SIC industries. For some of the other broad industry categories, however, the lack of comparable detail may cause problems for the Industrial VOC model. Such problems are discussed in detail in the following section.

B.2 PROVISION OF NATIONAL INDUSTRIAL OUTPUT BY SIC CODE

To generate a national forecast of uncontrolled VOC emissions, a projection of national industrial output by four-digit SIC code is needed. Not every SIC code is important to uncontrolled VOC emissions, although each is dealt with uniformly in the following discussion. As indicated, the DRI Interindustry model was selected to provide the necessary data.

The purposes of this section are to (1) present a detailed comparison of the SIC code data required by ARAM (for generating data on national uncontrolled VOC emissions by source category) with the corresponding national economic activity projections from the DRI Interindustry Service model to the year 2030 and (2) suggest a method for resolving cases in which the data requirements and the DRI projections do not match by SIC code.

The DRI Interindustry Service model projections are of *real total output in 1972 dollars* (and employment, if that component of the model system is called).* This measure of economic activity is a satisfactory measure of industrial output. For example, for projecting uncontrolled VOC emissions, total output of crushed and broken limestone is a better measure than value added.

Detailed comparisons of industrial-sector data that must be input to ARAM to project national uncontrolled VOC emissions (445 SIC codes) with the DRI Interindustry Service model categorization are shown in Table B.2, which is provided at the end of this Appendix. Column 1 displays the SIC codes required by the variable INDINDEX in ARAM, and column 2 identifies the industry by name. Column 3 shows two sets of codes: first, the DRI sector number, then the SIC code (or codes) corresponding to the DRI sector. For example, the first required SIC code is 1000, metal mining. DRI sectors 14 through 16 contain SIC code 1000. The fourth column of Table B.2 is reserved for comments. If the required SIC code matches the DRI sector, that fact is noted in column 4.

The DRI sectors match the required SIC codes perfectly in 228 of the 445 cases. In 205 other cases, the match is not perfect because the DRI sector contains more than the one particular SIC code of interest. In these cases, the suggestion is to use the

*Another important detail about the DRI Interindustry Service model is that it regularly produces projections only to the year 1995, although it has generated projections to the year 2009 (to correspond with the DRI macroeconomic model time horizon). For the purposes of the Phase 1 test runs, the time horizon of the model is temporarily extended to 2030 by assuming fixed coefficients and using a generated long-term final demand vector.

growth rate of the DRI sector of which the SIC industry is a part. For the remaining 12 SIC sectors, which represent the public sector, the DRI Interindustry Service model does not provide a measure of economic activity. The best measure of growth that is available in the DRI system is proposed to be variable G72, government purchases of goods and services (1972 dollars), from the DRI macroeconomic model.

In 174 cases, the DRI sector is a broader category than the three- or four-digit SIC code required. In these cases, it is proposed that the projected real growth rate of the broader DRI sector be used to approximate the growth of the required, smaller industry (which is a part of the DRI sector in question). For most sectors, this is argued to be a reasonable choice. These points, in particular, are noted:

- The U.S. Department of Commerce, Bureau of Industrial Economics (BIE), does provide analysis at the three- and four-digit SIC code level but declines to make long-term projections at this level of detail.³
- Historic data provided by the BIE³ could be used to adjust the DRI projections, but the trends observed for 1972-1982 may not continue to the year 2030.
- The DRI projections are based on the assumption that the input structures (technical coefficients) remain constant after 2009. Ad hoc adjustments to these coefficients could be proposed, but that would be impractical. If adjustments to the technical coefficients cannot be made for purposes of long-term projections, introducing other ad hoc adjustments to the DRI projections is pointless.

The proposed approximation method will work well for cases in which the match between the required SIC code and the definition of the DRI sector is "close." Suppose that the total output of the DRI sector, T, is composed of the outputs of a number of four-digit SIC industries, or:

$$T = \sum_{i=1}^n t_i$$

where t_i is the output of four-digit SIC industry i. The growth rate of T can be decomposed as follows:

$$\frac{dT}{T} = \sum_{i=1}^n \left(\frac{dt_i}{t_i} \right) \left(\frac{t_i}{T} \right)$$

where:

dt_i/t_i = the growth rate of industry i and

t_i/T = the share of industry i in total output T.

This identity can be rewritten as:

$$g = \sum_{i=1}^n g_i s_i$$

where:

g = the growth rate of total output T,

g_i = the growth rate of industry i, and

s_i = the share of industry i in total output T.

One way to think about the problem is to consider how well changes in total growth rate, g , reflect changes in g_1 , the growth rate of the industry in question. Obviously, $dg/dg_1 = s_1$; or a change in g_1 (holding all other g_i constant) changes g in proportion to s_1 , the share of industry 1 in T. Thus the larger s_1 is, the closer dg is to dg_1 . If $s_1 = 1$ (perfect match), then $dg = dg_1$, but if s_1 is small, then dg captures very little of dg_1 .

How closely do the DRI sectors match the required SIC codes? The "Comments" column of Table B.2 contains the share of the industry sector (SIC code) as a percentage of the DRI sector for the 174 cases in question. These shares are computed from the latest employment data available from the U.S. Bureau of the Census: 1977 Census of Manufactures, 1977 Census of Mineral Industries, 1977 Census of Retail Trade, 1977 Census of Selected Services, and 1977 Census of Wholesale Trade. If census data were not available, data from County Business Patterns for 1981 were used. Table B.3 at the end of this appendix lists these sources of data along with the corresponding broad SIC industry groups.

The results of this matching exercise can be summarized briefly. In 28 of these 174 sectors, the required SIC industry is 50% or more of the DRI sector of which it is a part. In 124 cases, the SIC industry is less than 50% of the corresponding DRI sector. Indeed, in several instances, the SIC industry is a very small fraction of the DRI sector. This problem is most prominent in the wholesale and retail trade and the service sectors. Finally, in 22 cases, how well the SIC industry matches the DRI sector could not be determined. This problem occurs either because the precise definition of the DRI sector (in terms of four-digit SIC codes) cannot be determined or because employment data for some four-digit SIC industries are not available. It occurs primarily in the construction and the TCU (transportation, communication, and utilities) sectors.

In addition to these 402 (228 + 174) SIC industries, another 31 four-digit SIC industries are also required for the INDINDEX variable in ARAM but do not exist in the *Standard Industrial Classification Manual 1972*.⁴ For purposes of this exercise, it is proposed that the corresponding three-digit SIC industry (and its projection by DRI sector) be used. Finally, the 12 SIC industries that are in the public sector are not included in the DRI Interindustry Service model. It is proposed that a DRI macroeconomic model variable (G72), real government purchases of goods and services (1972 dollars), be used.

B.3 REFERENCES FOR APPENDIX B

1. Data Resources, Inc., *On-Line Documentation, DRI Interindustry Service*, Lexington, Mass. (Nov. 1982).
2. Polak, R., and G. Rogers, *Understanding and Forecasting Changing Industrial Structure: DRI's State of the Art Interindustry Model System*, Data Resources, Inc., Lexington, Mass. (1984).
3. *1984 U.S. Industrial Outlook*, U.S. Department of Commerce, Bureau of Industrial Economics (Jan. 1984).
4. *Standard Industrial Classification Manual 1972*, Executive Office of the President, Office of Management and Budget (1972).

TABLE B.2 Correspondence between Required Industrial SIC Codes and Sectoral Detail in the DRI Interindustry Service Model

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
1000	Metal mining	14 through 16	Match
1010	Iron ore mining	14/1010, 1060	1010 = 50.2%
1021	Copper ore mining	15/1020	Match (1021 = 1020) ^b
1061	Ferroalloy ores, except vanadium	14/1010, 1060	1061 = 9.7%
1094	Uranium, radium, vanadium ore mining	16/1030-1050, Part 1080, 1090	1094 = 42.9%
1211	Bituminous coal and lignite mining	17/1110, Part 1112, 1211, Part 1213	1211 = 95.8%
1300	Oil and gas extraction	18/1310, 1320, Part 1380 44/Part 1500-1700, Part 1380	How DRI splits 1500-1700 cannot be determined
1311	Crude petroleum and natural gas	18/1310, 1320, Part 1380	1311 = 60.2%
1321	Natural-gas liquids	18/1310, 1320, Part 1380	1321 = 5.6%
1340		18/1310, 1320, Part 1380	Forced match ^c
1381	Drilling oil and gas wells	18/1310, 1320, Part 1380	1381 = 34.2%
1400	Mining and quarrying of nonmetallic minerals except fuels	19 through 20	Match
1422	Crushed and broken limestone	19/1410-1450, Part 1480, 1490	1422 = 31.5%
1429	Crushed and broken limestone, NEC ^c	19/1410-1450, Part 1480, 1490	1429 = 8.0%

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
1442	Construction sand and gravel	19/1410-1450, Part 1480, 1490	1442 = 28.0%
1474	Potash, soda and borate minerals	20/1470	1474 = 26.3%
1492	Gypsum	19/1410-1450, Part 1480, 1490	1492 = 0.4%
1494		19/1410-1450, Part 1480, 1490	Forced match ^d
1496	Talc, soapstone and pyrophyllite	19/1410-1450, Part 1480, 1490	1496 = 1.0%
1600	Construction other than building construction - general contractors	30 through 37/Part 1600, Part 1700 40 through 44/Part 1500-1700	
1611	Highway and street construction, except elevated highways	37/Part 1600, Part 1700	
1700	Construction - special trade contractors	30 through 37/Part 1600, Part 1700 40 through 44/Part 1500-1700	How DRI splits 1500-1700 cannot be determined
1761	Roofing and sheet metal work	30 through 37/Part 1600, Part 1700 40 through 44/Part 1500-1700	
1793	Glass and glazing work	30 through 37/Part 1600, Part 1700 40 through 44/Part 1500-1700	
2000	Food and kindred products	51 through 94	Match
2011	Meat packing products	51/2011	Match
2013	Other prepared meats	52/2013	Match

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
2020	Dairy products	55 through 59	Match
2029		55 through 59	Forced match ^d
2031		61 through 64 and 66/ 2032-2035 and 2037- 2038	Forced match ^d
2032	Canned specialities	61/2132	Match
2037	Frozen fruits, fruit juices and vegetables	66/2037, 2038	2037=52.9%
2040	Grain mill products	67 through 73	Match
2041	Flour and other grain mill products	67/2041	Match
2042		61 through 73/2040	Forced match ^d
2043	Cereal breakfast foods	68/2043	Match
2046	Wet corn milling	73/2046	Match
2048	Prepared feed, NEC ^c	71/2048	Match
2051	Bread, cake and related products	74/2051	Match
2052	Cookies and crackers	75/2052	Match
2061	Cane sugar, except re- fining only	76/2061, 2062, 2063	2061 = 25.9%
2062	Can and sugar refining	76/2061, 2062, 2063	2062 = 36.8%
2063	Beet sugar	76/2061, 2062, 2063	2063 = 37.2%
2065	Candy and other con- fectioning products	77/2065	Match
2074	Cottonseed oil mills	86/2074	Match

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Model Sector/SIC Codes	Comments
2075	Soybean oil mills	87/2075	Match
2077	Animal and marine fats and oils	89/2077	Match
2080	Beverages	80 through 85	Match
2082	Malt liquors	80/2082	Match
2083	Malt	81/2083	Match
2084	Wines, brandy and brandy spirits	82/2084	Match
2085	Distilled liquor, except brandy	83/2085	Match
2087	Flavoring extracts and syrups, NEC ^c	85/2087	Match
2090	Misc. food preparations and kindred products	60, 65, 90, 92-94/2091, 2092, 2095, 2097, 2099	Match
2091	Canned and cured fish and seafoods	60/2091	Match
2092	Fresh and frozen fish and seafoods	65/2092	Match
2093		60, 65, 90, 92-94/2091, 2092, 2095, 2097, 2098, 2099	Forced match ^d
2095	Roasted coffee	90/2095	Match
2099	Foods preparation,	94/2099	Match
2100	Tobacco manufactures	95 through 98/2111, 2121, 2131, 2141	Match
2111	Cigarettes	95/2111	Match
2141	Tobacco stemming and redrying	98/2141	Match

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
2200	Textile mill products	99 through 108	Match
2211	Broad woven fabric mills, cotton	99/2211, 2221, 2231, 2261, 2262	2211 = 34.1%
2221	Broad woven fabric mills, man-made fiber and silk	99/2211, 2221, 2231, 2261, 2262	2221 = 45.1%
2231	Broad woven fabric mills, wool	99/2211, 2221, 2231, 2261, 2262	2231 = 4.6%
2241	Narrow fabric mills and other smallnores mills	100/2241	Match
2254	Knit underwear mills	107/2251-2254, 2259	2254 = 16.3%
2259	Knitting mills, NEC ^c	107/2251-2254, 2259	2259 = 2.3%
2261	Finishers of broad woven fabrics of cotton	99/2211, 2221, 2231, 2261, 2262	2261 = 7.0%
2262	Finishers of broad woven fabrics of man-made fiber and silk	99/2221, 2221, 2231, 2261, 2262	2262 = 9.2%
2269	Finishers of textiles, NEC ^c	101/2269, 2281, 2282, 2283	2269 = 6.7%
2271	Woven carpets and rugs	103/2271, 2272, 2279	2271 = 6.8%
2281	Yarn spinning mills: cotton, man-made fibers and silks	101/2269, 2281, 2282, 2283	2281 = 69.0%
2284	Thread mills	102/2284	Match
2290	Misc. textile goods	104 through 106	Match
2293	Padding and upholstery filling	104/2291-2295	2293 = 19.0%
2295	Coated fabrics, not rubberized	104/2291-2295	2295 = 47.6%

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
2296	Fire cord and fabric	105/2296	Match
2297	Nonwoven fabrics	106/2297-2299	2297 = 44.3%
2299	Textile goods, NEC ^c	106/2297-2299	2299 = 29.3%
2300	Apparel and other finished products made from fabrics and similar materials	109 through 111	Match
2385	Raincoats and other waterproof outer garments	109/2310-2380	2385 = 0.6%
2389	Apparel and accessories, NEC ^c	109/2310-2380	2389 = 1.0%
2400	Lumber and wood products, except furniture	112 through 125, 343	Match
2411	Logging camps and contractors	112/2411	Match
2421	Sawmills and planing mills, general	113/2421	Match
2426	Hardwood dimensions and flooring mills	114/2426	Match
2429	Special product sawmills, NEC ^c	115/2429	Match
2431	Millwork	116/2431	Match
2432		116 through 119/2431, 2434, 2435, 2436, 2439	Forced match ^d
2433		116 through 119/2431, 2434, 2435, 2436, 2439	Forced match ^d
2434	Wood kitchen cabinets	* 117/2434	Match
2435	Hardwood veneer and plywood	118/2435, 2436	2435 = 25.1%

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
2436	Softwood veneer and plywood	118/2435, 2436	2436 = 74.9%
2448	Wood pallets and skids	122/2448	Match
2491	Wood preserving	121/2491	Match
2492	Particle board	123/2492	Match
2499	Wood products, NEC ^c	124/2499	Match
2500	Furniture and fixtures	126 through 138	Match
2511	Wood household furn., excl. upholstered	126/2511	Match
2512	Upholstered household furniture	129/2512	Match
2514	Metal household furniture	130/2514	Match
2519	Household furniture, NEC ^c	127/2519	Match
2521	Wood office furniture	132/2521	Match
2522	Metal office furniture	133/2522	Match
2531	Public building furniture	134/2531	Match
2541	Wood partitions and fixtures	135/2541	Match
2591	Drapery hardware and window blinds and shades	137/2591	Match
2599	Furniture and fixtures, NEC ^c	138/2599	Match
2600	Paper and allied Products	139 through 148	Match

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
2611	Pulp mills	139/2611	Match
2621	Paper mills, except building paper mills	140/2621	Match
2631	Paperboard mills	141/2631	Match
2640	Converted paper and paperboard products, except containers and boxes	142, 143, 145-147/ 2641, 2642, 2643, 2645-2649	Match
2641	Paper coating and glazing	145/2641	Match
2642	Envelopes	142/2642	Match
2643	Bags, except textile bags	146/2643	Match
2645	Die-cut paper and paperboard and cardboard	147/2645, 2646, 2648, 2649	2645 = 23.2%
2646	Pressed and molded pulp goods	146/2645, 2646, 2648, 2649	2646 = 6.1%
2649	Converted paper and paperboard products, NEC ^c	146/2645, 2646, 2648, 2649	2649 = 18.1%
2650	Paperboard containers boxes	148/2650	Match
2651	Folding paperboard boxes	148/2650	2651 = 22.2%
2653	Corrugated and solid fiber boxes	148/2650	2653 = 48.7%
2654	Sanitary food container	148/2650	2654 = 14.2%
2655	Fiber cans, tubes, drums and similar products	148/2650	2655 = 8.1%

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
2661	Building paper and building board mills	144/2661	Match
2700	Printing, publishing, and allied industries	149 through 160	Match
2711	Newspapers: publish- ing, publishing and printing	149/2711	Match
2720	Periodicals: publish- ing, publishing and printing	150/2721	Match
2721	Periodicals: publish- ing, publishing and printing	150/2721	Match
2722		150/2721	Forced match ^d
2731	Books: publishing, publishing and printing	151/2731	Match
2732	Book printing	152/2732	Match
2741	Misc. publishing	153/2741	Match
2750	Commercial printing	154, 158/2751, 2752, 2753, 2754	Match
2751	Commercial printing, letterpress and screen	154/2751, 2752, 2754	2751 = 29.1%
2752	Commercial printing, lithographic	154/2751, 2752, 2754	2752 = 63.7%
2753	Engraving and plate printing	158/2753	Match
2754	Commercial printing, gravure	154/2751, 2752, 2754	2754 = 7.2%
2761	Manifold business forms	155/2761	Match

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
2771	Greeting card publishing	157/2771	Match
2800	Chemicals and allied products	161 through 180	Match
2810	Industrial inorganic chemicals	161/2812, 2813, 2816, 2819 (excl. 28195), 2865, 2869	2810 (excl. 28195) = 30% ^e
2812	Alkalies and chlorine	161/2812, 2813, 2816, 2819 (excl. 28195), 2865, 2869	2812 = 4.0%
2813	Industrial gases	161/2812, 2813, 2816, 2819 (excl. 28195), 2865, 2869	2813 = 3.0%
2814		161/2812, 2813, 2816, 2819 (excl. 28195), 2865, 2869	Forced match ^d
2815		161/2812, 2813, 2816, 2819 (excl. 28195), 2865, 2869	Forced match ^d
2816	Inorganic pigments	161/2812, 2813, 2816, 2819 (excl. 28195), 2865, 2869	2816 = 3.0%
2818		161/2812, 2813, 2816, 2819 (excl. 28195), 2865, 2869	Forced match ^c
2819	Industrial inorganic chemicals, NEC ^c	161/2812, 2813, 2816, 2819 (excl. 28195), 2865, 2869	2819 (excl. 28195) = 18.6% 28195 = 9.0% of 2819
2820	Plastics materials and synthetic resins, synthetic rubbers, synthetic and other man-made fibers, except glass	171 through 174	Match

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
2821	Plastics materials, synthetic resins and nonvulcanizable elastomers	171/2821	Match
2822	Synthetic rubber (vulcanized elastomers)	172/2822	Match
2823	Celluloric man-made fibers	173/2823	Match
2824	Synthetic organic fibers, noncelluloric	174/2824	Match
2831	Biological products	175/2831, 2833, 2834	2831 = 12.7%
2833	Medicinal chemicals and botanical products	175/2831, 2833, 2834	2833 = 8.9%
2834	Pharmaceutical prepara- tions	175/2831, 2833, 2834	2834 = 78.3%
2841	Soap and other detergents, except specialty cleaners	176/2841	Match
2842	Specialty cleaning, polishing and sanitation preparations	177/2842	Match
2843	Surface active agents, finishing agents, sulfonated oils and assistants	178/2843	Match
2844	Perfumes, cosmetics and other toilet preparations	179/2844	Match
2850	Paints, varnishes, lacquers, enamels and allied products	180/2851	Match ^b
2851	Paints, varnishes, lacquers, enamels and allied products	180/2851	Match

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
2860	Industrial organic chemicals	161, 165/2812, 2813, 2816, 2819 (excl. 28195), 2865, 2869, 2861	2860 = 70.4% ^f
2861	Gum and wood products	165/2861	Match
2865	Cyclic (coal tar) crudes and cyclic intermediates, dyes, and organic pigments	161/2812, 2813, 2816, 2819 (excl. 28195), 2865, 2869	2865 = 13.2%
2869	Industrial organic chemicals, NEC ^c	161/2812, 2813, 2816, 2819 (excl. 28195), 2865, 2869	2869 = 56.8%
2871		162 through 164/2870	Forced match ^d
2872		162 through 164/2870	Forced match ^d
2873	Nitrogenous fertilizers	162/2873, 2874	2873 = 41.4%
2874	Phosphatic fertilizers	162/2873, 2874	2874 = 58.6%
2879	Pesticides and agricultural chemicals, NEC ^c	164/2879	Match
2890	Misc. chemical products	166 through 170	Match
2891	Adhesives and sealants	166/2891	Match
2892	Explosives	167/2892	Match
2893	Printing Inc.	168/2893	Match
2895	Carbon black	169/2895	Match
2899	Chemical preparations, NEC ^c	170/2899	Match
2900	Petroleum refining and related industries	181 through 183	Match

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
2910	Petroleum refining	181/2911, 2992, 2999	2911 = 97.8% ^b
2911	Petroleum refining	181/2911, 2992, 2999	2911 = 97.8% ^b
2915		181/2911, 2992, 2999	Forced match ^d
2921		181 through 183	Forced match ^d
2950	Paving and roofing materials	182, 183/2951, 2952	Match
2951	Pavings mixtures and blocks	182/2951	Match
2952	Asphalt felts and coatings	183/2952	Match
2990	Misc. products of petroleum and coal	181/2911, 2992, 2999	Match
2991		181/2911, 2992, 2999	Forced match ^d
2992	Lubricating oils and greases	181/2911, 2992, 2999	2992 = 10.9%
2999	Products of petroleum and coal, NEC ^c	181/2911, 2992, 2999	2999 = 1.4%
3000	Rubber and misc. plastics products, NEC ^c	184 through 189	Match
3011	Tires and inner tubes	184/3011	Match
3021	Rubber and plastics footwear	185/3021	Match
3031	Reclaimed rubber	186/3031	Match
3041	Rubber and plastics hose and belting	189/3041	Match

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
3069	Fabricated rubber products, NEC ^c	187/3069	Match
3078		188/3070	Forced match ^{b,d}
3079	Misc. plastics products	188/3079	Match
3100	Leather and leather products	190 through 195	Match
3111	Leather tanning and finishing	190/3111	Match
3143	Men's footwear, except athletic	192/3142-3144, 3149	3143 = 34.6%
3144	Women's footwear, except athletic	192/3142-3144, 3149	3144 = 38.8%
3149	Footwear, except rubber, NEC ^c	192/3142-3144, 3149	3149 = 19.7%
3200	Stone, clay, glass and concrete products	196 through 212	Match
3210	Flat glass	196/3211, 3229, 3231	3211 = 16.5% ^b
3211	Flat glass	196/3211, 3229, 3231	3211 = 16.5% ^b
3221	Glass containers	197/3221	Match
3229	Pressed and blown glass and glassware, NEC ^c	196/3211, 3229, 3231	3229 = 43.5%
3231	Glass products, made of purchased glass	196/3211, 3229, 3231	3231 = 40.1%
3240	Cement, hydraulic	198/3241	Match ^b
3241	Cement, hydraulic	198/3241	Match

TABLE B.2 (Cont'd)

Industrial Sector Summary

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
3251	Brick and structural clay tile	199/3250	3251 = 46.4%
3253	Ceramic wall and floor tile	199/3250	3253 = 20.0%
3255	Clay refractories	199/3250	3255 = 23.7%
3261	Vitreous, china plumbing fixtures and china and earthenware fittings and bathroom accessories	200/3260	3261 = 22.3%
3264	Porcelain electrical supplies	200/3260	3264 = 26.0%
3269	Pottery products, NEC ^c	200/3260	3269 = 24.7%
3271	Concrete block and brick	201/3271	Match
3273	Ready mix concrete	203/3273	Match
3274	Lime	204/3274	Match
3275	Gypsum products	205/3275	Match
3291	Abrasive products	207/3291	Match
3292	Asbestos products	208/3292, 3293	3292 = 23.8%
3293	Gaskets, packing and sealing devices	208/3292, 3293	3293 = 76.2%
3295	Minerals and earths, ground or otherwise treated	209/3295	Match
3296	Mineral wool	210/3296	Match
3297	Nonclay refractories	211/3297	Match

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
3299	Nonmetallic mineral products, NEC ^c	212/3299	Match
3300	Primary metal industries	213 through 218 and 220 through 234	Match
3310	Blast furnaces, steel works and rolling and finishing mills	213 through 217/3312, 3313, 3315-3317	Match
3311		213 through 217/3312, 3313, 3315-3317	Forced match ^d
3312	Blast furnaces (includ- ing coke ovens) steel works, rolling mills	213/3312	Match
3313	Electrometallurgical products	214/3313	Match
3315	Steel wire drawing and steel nails and spikes	215/3315	Match
3316	Cold rolled steel sheet, strip, and bars	216/3316	Match
3317	Steel pipe and tubes	217/3317	Match
3320	Iron and steel foundries	218/3321, 3322, 3324, 3325	Match
3321	Gray iron foundries	218/3321, 3322, 3324, 3325	3321 = 61.9%
3322	Malleable iron foundries	218/3321, 3322, 3324, 3325	3322 = 4.5%
3323	Steel investment foundries	218/3321, 3322, 3324, 3325	Forced match ^d
3325	Steel foundries, NEC ^c	218/3321, 3322, 3324, 3325	3325 = 26.0%
3331	Primary smelting and refining of copper	222/3331	Match

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
3334	Primary production of aluminum	225/3334	Match
3339	Primary smelting and refining of nonferrous metals, NEC ^c	226/3339	Match
3340	Secondary smelting and refining of nonferrous metals	227/3341	Match ^b
3341	Secondary smelting and refining of nonferrous metals	227/3341	Match
3351	Rolling, drawing, and extruding of nonferrous metals	228/3351	Match
3352		228 through 231, 3351, 3353-3355, 3357	Forced match ^d
3353	Aluminum sheet, plate, and foil	229/3353, 3354, 3355	3353 = 50.5%
3354	Aluminum extruded products	229/3353, 3354, 3355	3354 = 41.8%
3355	Aluminum rolling and drawing, NEC ^c	229/3353, 3354, 3355	3355 = 7.7%
3357	Drawing and insulating of nonferrous wire	231/3357	Match
3361	Aluminum foundries (castings)	232/3361	Match
3362	Brass, bronze, copper, copper base alloy foundries (castings)	233/3362	Match
3390	Misc. primary metal products	220,221/3398, 3399	Match

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
3399	Primary metal products, NEC ^c	221/3399	Match
3400	Fabricated metal products, except machinery and transportation equipment	46, 48 through 50, 219, and 235 through 259	Match
3411	Metal cans	236/3411	Match
3412	Metal shipping barrels, drums, kegs, and pails	237/3412	Match
3421	Cutlery	249/3421	Match
3429	Hardware, NEC ^c	252/3429	Match
3431	Enameling iron and metal sanitary ware	238/3431	Match
3432	Plumbing fixture fittings and trim (brass goods)	239/3432	Match
3433	Heating equipment, except electric and warm air furnaces	240/3433	Match
3441	Fabricated structural metal	241/3441	Match
3442	Metal doors, sash, frames, molding, and trim	242/3442	Match
3443	Fabricated plate work (boiler shops)	243/3443	Match
3444	Sheet metal work	244/3444	Match
3461		220, 235, 248/3462 * 3463, 3465, 3466, 3469	Forced match ^d
3462	Iron and steel forgings	219/3462	Match

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
3465	Automotive stampings	248/3465, 3466, 3469	3465 = 46.6%
3469	Metal stampings, NEC ^c	248/3465, 3466, 3469	3469 = 50.2%
3471	Electroplating, plating, polishing, anodizing and coloring	253/3471	Match
3479	Coating, engraving, and allied services, NEC ^c	254/3479	Match
3481		46, 48-50/3483, 3484, 3482, 3489	Forced match ^c
3483	Ammunition, except for small arms, NEC ^c	46/3483	Match
3494	Valves and pipe fittings, except plumber's brass goods	257/3494, 3498	3494 = 78.6%
3496	Misc. fabricated wire products	255/3495, 3496	3496 = 59.5%
3497	Metal foil and leaf	258/3497	Match
3499	Fabricated metal products, NEC ^c	259/3499	Match
3500	Machinery, except electrical	260 through 300	Match
3511	Steam, gas, and hydraulic turbines and turbine generator set units	260/3511	Match
3519	Internal combustion engines, NEC ^c	261/3519	Match
3521		262, 263/3523, 3574	Forced match ^d
3522		262, 263/3523, 3574	Forced match ^d

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
3523	Farm machinery and equipment	262/3523	Match
3524	Garden tractors and lawn and garden equipment	263/3524	Match
3531	Construction machinery and equipment	264/3531	Match
3537	Industrial trucks, tractors, trailers and stackers	270/3537	Match
3541	Machine tools, metal cutting types	271/3541	Match
3546	Power driven hard tools	274/3546	Match
3555	Printing trades machinery and equipment	281/3555	Match
3559	Special industrial machinery, NEC ^c	282/3559	Match
3560	General industrial machinery and equipment	283 through 289	Match
3569	General industrial machinery and equipment, NEC ^c	289/3569	Match
3573	Electronic computing equipment	291/3573	Match
3579	Office machines, NEC ^c	295/3579	Match
3582	Commercial laundry, dry cleaning and pressing machines	297/3582	Match
3585	Air conditioning and warm air heating equipment and commercial and industrial refrigeration equipment	* 298/3585	Match

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
3589	Service industry machines, NEC ^c	300/3589	Match
3599	Machinery, except electrical, NEC ^c	290/3592, 3599	3599 = 89.2%
3600	Electrical and electronic machinery, equipment and supplies	302 through 330	Match
3612	Power, distribution, and specialty trans- formers	302/3612	Match
3613	Switchgear and switch- board apparatus	303/3613	Match
3621	Motors and generators	304/3621	Match
3622	Industrial controls	305/3622	Match
3624	Carbon and graphite products	307/3624	Match
3631	Household cooking equipment	309/3631	Match
3632	Household refrigerators and home and farm freezers	310/3632	Match
3634	Electric housewares and fans	312/3634	Match
3639	Household appliances, NEC ^c	315/3639	Match
3641	Electric lamps	316/3641	Match
3643	Current-carrying wiring devices	318/3643, 3644	3643 = 64.0%
3648	Lighting equipment, NEC ^c	317/3645, 3646, 3647, 3648	3648 = 20.7%

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
3651	Radio and television receiving sets, except communication types	319/3651	Match
3661	Telephone and telegraph apparatus	321/3661	Match
3662	Radio and television transmitting, signaling and detection equipment and establishments	322/3662	Match
3674	Semiconductors and related devices	324/3674	Match
3679	Electronic components, NEC ^c	325/3675, 3676, 3777, 3678, 3679	3679 = 36.1%
3691	Storage batteries	326/3691	Match
3694	Electric equipment for internal combustion engines	329/3694	Match
3699	Electrical machinery, equipment and supplies, NEC ^c	330/3699	Match
3700	Transportation equipment	45, 47, 331 through 342, and 344	Match
3710	Motor vehicles and motor vehicle equipment	331-334/3711, 3713, 3714, 3715	Match
3711	Motor vehicles and passenger car bodies	333/3711	Match
3714	Motor vehicle parts and accessories	334/3714	Match
3721	Aircraft	335/3721	Match
3722	*	335 through 337/3721, 3724, 3764, 3728, 3769	Forced match ^d

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
3724	Aircraft engines and engine parts	336/3724, 3764	3724 = 84.0%
3728	Aircraft parts and auxiliary equipment, NEC ^c	337/3728, 3769	3728 = 93.3%
3729		335 through 337/3721, 3724, 3764, 3728, 3769	Forced match ^d
3731	Ship building and repairing	338/3731	Match
3732	Boat building and repairing	339/3732	Match
3743	Railroad equipment	340/3743	Match
3751	Motorcycles, bicycles and parts	341/3751	Match
3761	Guided missiles and space vehicles	45/3761	Match
3799	Transportation equip- ment, NEC ^c	344/3799	Match
3821		301, 346/3825, 3820 (excl. 3825)	Forced match ^d
3822	Automatic controls for regulating residential and commercial environ- ments and appliances	346/3820 (excl. 3825)	3822 = 24.3%
3823	Industrial instruments for measurement, dis- play and control of process variables and related products	346/3820 (excl. 3825)	3823 = 37.4%
3825	Instruments for measur- ing and testing of electricity and electrical signals	301/3825	Match

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
3841	Surgical and medical instruments and apparatus	347/3841	Match
3842	Orthopedic, prosthetic and surgical appliances and supplies	348/3842	Match
3850	Ophthalmic goods	352/3851	Match ^b
3851	Ophthalmic goods	352/3851	Match
3861	Photographic equipment and supplies	353/3861	Match
3900	Miscellaneous manufacturing industries	354 through 362	Match
3941		359/3942, 3944, 3949	Forced match ^d
3949	Sporting and athletic goods, NEC ^c	359/3942, 3944, 3949	3949 = 47.8%
3995	Burial caskets	362/3990	3995 = 7.1%
3996	Linoleum, asphalted-felt-base, and other hard surface floor coverings, NEC ^c	362/3990	3996 = 3.7%
3999	Manufacturing industries, NEC ^c	362/3990	3999 = 41.3%
4000	Railroad transportation	363/40,4740, Part 4789	4000 = 99+%
4013	Switching and terminal establishments	363/40,4740, Part 4789	4013 not available
4021		363/40, 4740, Part 4789	Forced match ^d
4200	Public warehousing	365/4200, Part 4789	4200 = 99%

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
4221	Farm product warehousing and storage	365/4200, Part 4789	4221 = 0.9%
4225	General warehousing and storage	365/4200, Part 4789	4225 = 2.3%
4226	Special warehousing and storage, NEC ^c	365/4200, Part 4789	4226 = 0.9%
4400	Water transportation	366/4400	Match
4500	Transportation by air	367/4500	Match
4511	Air transportation, certified carriers	367/4500	4511 = 87.7%
4582	Airports and flying fields	367/4500	4580 = 11.7% 4582 not available
4593		367/4500	Forced match ^d
4600	Pipelines, except natural gas	368/4600	Match
4612	Crude petroleum pipelines	368/4600	4612 not available
4613	Refined petroleum pipelines	368/4600	4613 not available
4821	Telegraph communication (wire or radio)	370/4800 (excl. 4830)	4821 = 48.7%
4900	Electric, gas and sanitary services	372 through 374	Match
4911	Electric services	372/4910, Part 4930	4911 = 76.0%
4922	Natural gas transmission	373/4920, 4930	4922 not available
4923	Natural gas transmission and distribution	373/4920, 4930	4923 not available

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
4924	Natural gas distribution	373/4920, 4930	4924 not available
4925	Mixed, manufactured or liquefied petroleum gas production and/or distribution	373/4920, 4930	4925 not available
4931	Electric and other services	372/4911, 4931	4931 = 24.0%
4939	Combination utilities, NEC ^c	372/4910, Part 4930 373/4920, Part 4930 374/4940-4970, Part 4930	4939 = 4.4%
4952	Sewerage systems	374/4940-4970, Part 4930	4950 = 61.5% 4952 not available
4953	Refuse systems	374/4940-4970, Part 4930	4950 = 61.5% 4953 not available
4961	Steam supply	374/4940-4970, Part 4930	4961 = 4.4%
5000	Wholesale trade, durable goods	375, 376/5000, 5100, 5200-5700, 5900, 7396, 8042	5000 = 57.7%
5013	Automotive parts and supplies	375/5000, 5100	5013 = 6.0%
5029		375/5000, 5100	Forced match ^d
5084	Industrial machinery and equipment	375/5000, 5100	5084 = 4.2%
5092		375/5000, 5100	Forced match ^d
5093	Scrap and waste materials	375/5000, 5100	5093 = 1.9%

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
5100	Wholesale trade, non-durable goods	375/5000, 5100	5100 = 42.3%
5111	Printing and writing paper	375/5000, 5100	5111 = 0.7%
5153	Grain	375/5000, 5100	5153 = 1.6%
5161	Chemicals and allied products	375/5000, 5100	5161 = 2.3%
5171	Petroleum bulk stations and terminals	375/5000, 5100	5171 = 2.9%
5172	Petroleum and petroleum products wholesalers, except bulk stations and terminals	375/5000, 5100	5172 = 1.2%
5311	Department stores	376/5200-5700, 5900, 7396, 8042	5311 = 17.6%
5400	Food stores	375/5200-5700, 5900, 7396, 8042	5400 = 21.0%
5500	Automotive dealers and gasoline service stations	375/5200-5700, 5900, 7396, 8042	5500 = 19.2%
5510	Motor vehicle dealers (new and used)	375/5200-5700, 5900, 7396, 8042	5510 = 8.5%
5540	Gasoline service stations	375/5200-5700, 5900, 7396, 8042	5540 = 7.2% ^b
5541	Gasoline service stations	375/5200-5700, 5900, 7396, 8042	5541 = 7.2% ^b
5931	Used merchandise stores	375/5200-5700, 5900, 7396, 8042	5931 = 0.7%
5983	Fuel oil dealers	375/5200-5700, 5900, 7396, 8042	5983 = 0.6%
6500	Real estate	381/6500, 6600, Part 1531	6500 = 89.7%

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
6513	Operators of apartment buildings	381/6500, 6600, Part 1531	6510 = 0.04% 6513 not available
6514	Operators of dwellings other than apartment buildings	381/6500, 6600, Part 1531	6510 = 0.04% 6514 not available
6519	Lessors of real property, NEC ^c	381/6500, 6600, Part 1531	6510 = 0.04% 6519 not available
7011	Hotels, motels and tourist courts	382/Part 7000 388/5800, Part 7000	7011 = 18.6%
7200	Personal services	383/Part 7200, 7620-7640, Part 7600 384/7230-7240	7200 = 77.6%
7210	Laundry, cleaning and garment services	383/Part 7200, 7620-7640, Part 7600	7210 = 42.0%
7211	Power laundries, family and commercial	383/Part 7200, 7620-7640, Part 7600	7211 = 5.6%
7212	Garment pressing, and agents for laundries and dry cleaners	383/Part 7200, 7620-7640, Part 7600	7212 = 0.9%
7213	Linen supply	383/Part 7200, 7620-7640, Part 7600	7213 = 7.1%
7216	Dry cleaning plants, except dry cleaning	383/Part 7200, 7620-7640, Part 7600	7216 = 15.8%
7218	Industrial launderers	383/Part 7200, 7620-7640, Part 7600	7218 = 5.5%
7219	Laundry and garment services, NEC ^c	383/Part 7200, 7620-7640, Part 7600	7219 = 0.7%
7240	Barber shops	383/Part 7200, 7620-7640, Part 7600	7240 = 3.3%

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
7299	Misc. personal services	383/Part 7200, 7620-7640, Part 7600	7290 = 14.5% 7299 not available
7300	Business services	376/5200-5700, 5900, 7396, 8042, 385/7320-7390, Part 7600 386/7310	7300 = 94.3%
7391	Research and development laboratories	385/7320-7390, Part 7600	7391 = 2.2%
7399	Business services, NEC ^c	385/7320-7390, Part 7600	7399 = 6.8%
7534	Tire retreading and repair shops	389/7500	7534 = 3.4%
7535	Paint shops	389/7500	7535 = 2.3%
7694	Armature rewinding shop	383/Part 7200, 7620-7640, Part 7600, 385/7320-7390, Part 7600	7694 = 0.1%
8000	Health services	392/8010-8030, 8041, 393/8060 394/074, 8049, 8050, 8070-8090 376/5200-5700, 5900, 7396, 8042	8000 = 31.7%
8062	General mechanical and surgical hospitals	393/8060	8062 not available
8063	Psychiatric hospitals	393/8060	8063 not available
8200	Educational services	395/8200	Match
8210	Elementary and secondary schools	395/8200	8210 = 29.7% ^b
8211	Elementary and secondary schools	395/8200	8211 = 29.7% ^b

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
8221	Colleges, universities and professional schools	395/8200	8220 = 58.1% 8221 not available
8299	Schools and educational services, NEC ^c	395/8200	8299 = 5.8%
8300	Social services	397/8300	Match
8911	Engineering, archi- tectural, and surveying services	387/8100, Part 8900	Can't deter- mine how DRI splits 8900
8999	Services, NEC ^c	387/8100, Part 8900	Can't deter- mine how DRI splits 8900
9121	Legislative bodies		-g
9145			-g
9200	Justice, public order, and safety		-g
9223	Correctional insti- tutions		-g
9289			-g
9500	Administration of environmental quality and housing programs		-g
9512	Food, mineral, wildlife and forest conservation		-g
9661	Space, research and technology		-g
9700	National security and international affairs		-g
9711	National security	*	-g

TABLE B.2 (Cont'd)

Industrial VOC SIC Codes	Sector Name	DRI Interindustry Service Model Sector/SIC Codes ^a	Comments
9900	Nonclassifiable establishments		-g
9999	Nonclassifiable establishments		-g

^aFour-digit SIC codes that end in zero, such as 1010, represent all sectors within the corresponding three-digit category (e.g., 101 comprises 1011-1019).

^bOnly one four-digit SIC code is designated in this three-digit category. Consequently, the values for each are equivalent.

^cNEC = not elsewhere classified.

^dThese industrial VOC SIC codes are contained in the NAPAP inventory and are required by the Industrial VOC model but do not exist (in the 1972 Standard Industrial Classification Manual). To provide data for these sectors in the Phase 1 test runs, use of surrogate values is proposed. These surrogate values correspond to the three-digit SIC code data that include the four-digit SIC code of concern. Future investigation of the match of industrial VOC categories to SIC codes is required to eliminate this problem.

^eWhere SIC 2810 = 2812 + 2813 + 2816 + 2819; and where 28195 is 0.2 as large as DRI sector 161.

^fWhere SIC 2860 = 2861 + 2865 + 2869. DRI sector 165 contains SIC 2861, which is 1.29% of 2860; 70.0% of DRI sector 161 = SIC 2865 + 2869.

^gDRI Interindustry Service model output is not provided for these SIC codes. A DRI macroeconomic model variable -- government purchases of goods and services, 1972 dollars (G72) -- will be used as the measure of economic activity for all sectors in SIC group 90.

TABLE B.3 Data Sources for Comparing SIC Industries with
DRI Sectors

Broad SIC Industry Groups	DRI Sectors	U.S. Bureau of the Census Data Source
SIC 10-14	Mining	1977 Census of Mineral Industries
SIC 15-17	Construction	No comparisons possible -- data source unavailable
SIC 20-39	Manufacturing	1977 Census of Manufactures
SIC 40-49	Transportation, communication, and utilities	County Business Patterns for 1981
SIC 50-59	Trade	1977 Census of Retail Trade and 1977 Census of Wholesale Trade
SIC 65	Real estate	County Business Patterns for 1981
SIC 70-79	Services	1977 Census of Selected Services
SIC 80-89	Services	County Business Patterns for 1981

APPENDIX C:**DOCUMENTATION OF DATA PROBLEMS WITH ARAM VARIABLES USED TO
GENERATE INDUSTRIAL VOC DRIVER DATA: UNCONTROLLED VOC
EMISSIONS BY STATE AND SOURCE CATEGORY**

APPENDIX C:

**DOCUMENTATION OF DATA PROBLEMS WITH ARAM VARIABLES USED TO
GENERATE INDUSTRIAL VOC DRIVER DATA: UNCONTROLLED VOC
EMISSIONS BY STATE AND SOURCE CATEGORY**

Three data problems were encountered in the generation of uncontrolled emissions driver data for the Industrial VOC model. (The data problems and solutions that related to the use of the DRI Interindustry Service model for national projections of industrial activity by SIC code are described in App. B.) These data problems are documented below; each problem is stated with its corresponding solution. The solution to each particular data problem is the best currently available; additional effort should be devoted to these data problems before the scheduled assessment.

C.1 NONEXISTENT SIC CODES IN NAPAP INVENTORY

Problem. To forecast uncontrolled emissions in each point-source category at the national level, a projection of economic growth is multiplied by the base-year uncontrolled emissions. The most appropriate measure of economic growth to use is that corresponding to each industrial sector at the four-digit level. However, more than one SIC code could be matched to an emission-source category. Hence, a method was devised to compute a weighted-average index of industrial growth for each source category. While the SIC codes that are linked with industrial VOC emissions in each point-source category were being identified, the NAPAP inventory was found to include a substantial number (32) of SIC codes that do not exist. In other words, SIC codes are specified as producing VOC emissions, but these SIC codes are not defined in the most current reference on the subject, *Standard Industrial Classification Manual 1972*, published in 1972 by the Executive Office of the President, Office of Management and Budget. The erroneous SIC codes listed are:

1340	2042	2722	2871	2991	3461	3722	4021
1494	2093	2814	2872	3078	3481	3729	4593
2029	2432	2815	2915	3311	3521	3821	5029
2031	2433	2818	2921	3352	3522	3941	5092

The problem may be more prevalent than this list indicates, because, for the current exercise, not every SIC code in the NAPAP inventory was evaluated for legitimacy. These erroneous industrial SIC codes are a problem for the Phase 1 test runs because a corresponding measure of economic growth is not available in the DRI Interindustry Service model for use in projecting future levels of uncontrolled VOC emissions by source category.

Solution. For the Phase 1 test runs, the erroneous four-digit industrial SIC codes are matched with the closest three-digit SIC code included in the DRI Interindustry

Service model. If the three-digit SIC code is not a feasible match, a two-digit SIC code is used. Table B.2 showed the matching exercise used to map the required SIC codes with the DRI Interindustry Service model classification codes and corresponding SIC codes. The erroneous SIC codes are indicated as "forced match" in the "Comments" column of the table.

C.2 VOC EMISSIONS IN NAPAP INVENTORY CORRELATED WITH SIC CODE 0 (ZERO)

Problem. Another data problem encountered when the composite growth index was being constructed was that VOC emissions in particular point-source categories and states are correlated with a zero SIC code. Of particular concern is the fact that these zero SIC codes and corresponding emissions are in the top four SIC codes, which are used to construct the emission-based weighted-average growth index. The share of emissions in a VOC category associated with the zero SIC code is often a significant value; therefore, a solution to the problem had to be devised. The U.S. Environmental Protection Agency's Aerometric and Emissions Reporting System (AEROS) region number, state, and VOC category where a zero SIC code is associated with an emissions level in the NAPAP inventory are given in Table C.1.

The problem seems to be concentrated in certain states: Illinois, Indiana, Kentucky, Mississippi, North Carolina, and South Carolina. Moreover, a select number of VOC categories seem to appear repeatedly in the list; this pattern could suggest a problem of representing these VOC categories by SIC codes in the NAPAP inventory. Finally, most of the zero SIC codes have a large share of the emissions in a particular state's VOC category. This fact is conveyed by the number of times an SIC code rank of 1 appears in this list, which indicates that the zero SIC code has the highest emission-based weight in that state and VOC category.

Solution. A two-step procedure was devised to correct this problem. In the first step, each VOC-category/state pairing is examined to determine if more than one SIC code represents the emissions originating from the pair. If more than one industry (SIC code) is identified as producing emissions in the pairing, then the zero SIC code and associated emissions share is dropped from the group of four SIC codes considered in each pairing. Then the emission shares for the three remaining SIC codes are rescaled to equal 100%. This procedure solves the zero SIC code problem most of the time. In a few cases, however, only one SIC code is identified in each pairing; this situation requires a different solution.

The second step in this procedure solves the aforementioned problem if only one industry (SIC code) is identified as producing the emissions in the VOC-category/state pairing and the SIC code is zero. The solution depends on whether the condition occurs at the national or state level. If the problem arises at the national level (AEROS region 53), then a broader measure of industrial growth is used as a surrogate value for the zero SIC code. The measure selected is the index of total manufacturing (variable JQIND) reported in the DRI macroeconomic model. If, instead, the problem occurs in the state

TABLE C.1 VOC Emissions Correlated with Zero SIC Codes

AEROS				AEROS			
Region No.	State	VOC Category	SIC Code Rank	Region No.	State	VOC Category	SIC Code Rank
3	Ariz.	5	2	22	Mass.	3	2
		43	1			4	3
5	Calif.	14	4			60	2
14	Ill.	4	4	25	Miss.	12	2
		7	4			26	1
		32	2			29	1
		47	1			43	3
		53	1			47	2
		57	2			49	1
		60	1			51	1
		62	4			53	2
		88	2			63	1
		90	4			90	1
15	Ind.	4	4	29	Nev.	3	2
		5	2			4	2
		8	2	30	N.H.	3	1
		9	2			7	3
		14	2			84	1
		15	1	31	N.J.	85	2
		16	2	34	N.C.	3	3
		17	1			4	2
		33	1			7	2
		34	1			35	1
		36	1			77	2
		43	1			88	4
		56	1	36	Ohio	46	3
		79	2	42	S.C.	62	2
		85	3			63	1
		88	4			77	1
		90	4			80	3
16	Iowa	51	1			81	2
17	Kans.	3	4			85	3
18	Ky.	3	3			90	3
		4	4	44	Tenn.	12	2
		5	3	45	Texas	4	4
		12	2	47	Vt.	87	1
		17	4	50	W.V.	12	4
		43	4			44	2
		59	2			88	3
		60	3	51	Wis.	7	4
		63	4	53	U.S.	34	1
		81	2			77	3
		82	4				

pairing, total manufacturing employment is inserted as the surrogate value. This measure (variable EMSUM) is reported in the DRI/RIS model.

C.3 NO STATE ACTIVITY INDEX FOR PARTICULAR SIC CODES NEEDED IN THE COMPUTATION OF THE COMPOSITE GROWTH INDEX FOR A VOC CATEGORY

Problem. In the ARAM regionalization formula, as applied to the derivation of state-level uncontrolled VOC emissions by source category, the variable ACTINDEX is computed as the product of emission-based weights and an employment index by SIC code. The equation transforms an employment activity index by SIC code into a measure of regional economic activity by VOC category through the use of emission-based weights for each SIC code in a particular VOC category. The state-level employment forecasts by SIC code are provided by the DRI/RIS model. A data problem arises in certain cases in which employment data do not exist for particular states and SIC codes that are needed to compute the ACTINDEX variable. The data do not exist because state governments are under no legal obligation to report employment at the two-digit level on the Bureau of Labor Statistics (BLS) survey form (series 790). DRI bases its regional (state) employment forecasts on this BLS data. As a result, a matching problem exists: The NAPAP inventory indicates that an industrial SIC code is producing emissions in a particular state, whereas the DRI/RIS model does not project employment in the same state/SIC-code pairing. The states and SIC codes for which this problem occurs are listed in Table C.2.

This data problem occurs in 28 states; more importantly, it arises principally with respect to SIC codes 26, 28, and 29 (paper and allied products, chemicals and allied products, petroleum refining and related industries, respectively).

Solution. Three potential solutions were examined; the best was determined to be use of the regional employment index by SIC code as a surrogate for the nonexistent state employment index. This regional employment index is constructed from projections produced by the DRI/RIS model.

**TABLE C.2 SIC Code/State Combinations with
No Employment Activity Data**

State FIPS ^a Code		SIC Code	State FIPS Code		SIC Code
1	Ala.	29	30	Mont.	26
4	Ark.	25			28
		26			32
		28	31	Neb.	26
		29			29
		30			30
		37	32	Nev.	29
8	Colo.	29	35	N.M.	29
9	Conn.	14			32
		32	37	N.C.	29
		39	38	N.D.	29
10	Del.	24	40	Okla.	26
		25			28
		29			29
		32			38
12	Fla.	29	45	S.C.	21
13	Ga.	29			29
		30			30
16	Idaho	29	46	S.D.	29
19	Iowa	29	49	Utah	32
20	Kans.	24	50	Vt.	37
		26			38
		30	51	Va.	29
		38	53	Wash.	30
22	La.	39	54	W.V.	26
25	Mass.	10			29
29	Mo.	29	56	Wyo.	28
		30			

^aFIPS = Federal Information Processing Standards.

different, which may indicate the relationship between the two groups of patients.

DISCUSSION

The results of this study show that the application of the new method of assessing the quality of life of patients with cancer to patients with breast cancer has been successful. The new method of assessment of quality of life of patients with cancer can be used to evaluate the quality of life of patients with breast cancer, and it can also be used to compare the quality of life of patients with different types of cancer. The new method of assessment of quality of life of patients with breast cancer can also be used to evaluate the quality of life of patients with other types of cancer.

The new method of assessment of quality of life of patients with breast cancer has been successful. The new method of assessment of quality of life of patients with breast cancer can also be used to evaluate the quality of life of patients with other types of cancer.

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APPENDIX D:**STATE-LEVEL PROJECTIONS OF UNCONTROLLED VOC EMISSIONS
BY SOURCE CATEGORY AND SCENARIO**

VOC CAT 1

REFERENCE CASE												LOW CASE			HIGH CASE		
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030	1990	2000	2030
HS 25	13.14	12.90	13.35	13.07	13.45	15.05	17.01	18.91	12.54	11.99	14.63	13.35	14.31	22.43			

VOC CAT 2

	1920	1935	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030			
HS 25	0.02	0.02	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02			
HM 32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TX 45	7.13	6.76	6.43	5.74	5.93	6.80	7.67	8.50	6.00	5.10	6.03	6.48	6.47	10.33			

VOC CAT 3

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030			
AL 1	0.51	0.56	0.62	0.67	0.72	0.83	1.06	1.20	0.58	0.63	0.95	0.63	0.77	1.44			
AZ 3	0.32	0.40	0.51	0.60	0.69	0.92	1.10	1.25	0.47	0.59	0.97	0.52	0.74	1.50			
AR 4	0.07	0.03	0.09	0.10	0.10	0.11	0.13	0.15	0.03	0.03	0.11	0.09	0.11	0.13			
CA 5	68.80	79.33	91.15	95.59	103.56	119.93	143.76	165.17	84.27	90.05	127.63	93.00	111.51	196.11			
CO 6	0.54	0.63	0.75	0.83	0.91	1.12	1.35	1.53	0.69	0.79	1.20	0.77	0.98	1.84			
CT 7	0.83	0.97	1.16	1.35	1.46	1.80	2.16	2.45	1.05	1.22	1.88	1.18	1.57	2.95			
DE 8	0.40	0.42	0.45	0.47	0.49	0.56	0.67	0.76	0.42	0.44	0.62	0.46	0.53	0.91			
FL 10	1.07	1.39	1.65	1.86	2.03	2.73	3.28	3.72	1.54	1.85	2.99	1.69	2.24	4.47			
GA 11	0.26	0.33	0.40	0.44	0.50	0.65	0.73	0.85	0.37	0.44	0.72	0.41	0.53	1.06			
ID 13	0.13	0.15	0.17	0.19	0.20	0.25	0.30	0.34	0.15	0.17	0.26	0.17	0.22	0.41			
IL 14	17.62	17.50	19.67	20.25	20.79	23.51	28.18	31.98	17.53	17.53	21.16	20.07	22.39	33.44			
IH 15	6.89	7.07	8.21	8.95	9.37	10.77	12.91	14.65	7.57	8.11	11.52	8.33	10.09	17.61			
KS 17	0.69	0.72	0.66	0.91	0.96	1.12	1.35	1.53	0.77	0.82	1.18	0.86	1.03	1.84			
KY 18	0.67	1.00	1.11	1.20	1.30	1.63	1.95	2.21	1.02	1.13	1.72	1.13	1.40	2.66			
LA 19	9.51	8.92	11.56	12.61	13.00	14.72	17.65	20.03	10.03	10.72	14.76	11.80	14.00	24.08			
ME 20	0.32	0.40	0.47	0.54	0.57	0.70	0.84	0.95	0.42	0.48	0.74	0.48	0.62	1.15			
MD 21	81.79	95.90	103.85	120.43	133.72	174.51	209.18	237.43	102.46	120.85	195.88	112.03	144.02	285.37			
MA 22	0.42	0.43	0.55	0.63	0.67	0.81	0.97	1.10	0.51	0.57	0.85	0.57	0.72	1.32			
MI 23	1.57	1.67	1.84	1.97	2.10	2.51	3.01	3.42	1.68	1.77	2.57	1.88	2.26	4.11			
MI 24	1.18	1.23	1.49	1.56	1.59	1.80	2.16	2.45	1.31	1.33	1.87	1.52	1.72	2.95			
MS 25	2.42	2.79	3.11	3.33	3.59	4.44	5.33	6.04	2.86	3.10	4.72	3.17	3.86	7.27			
MO 26	8.92	9.36	9.99	10.49	10.96	12.48	14.95	16.97	9.38	9.77	13.80	10.19	11.80	20.40			
MT 27	0.05	0.05	0.06	0.07	0.08	0.09	0.11	0.12	0.06	0.07	0.10	0.07	0.08	0.15			
NE 28	2.09	2.30	2.70	2.90	3.11	3.80	4.55	5.16	2.43	2.68	3.94	2.75	3.35	6.21			
NH 29	1.05	1.26	1.63	1.95	2.28	3.18	3.82	4.33	1.51	2.05	3.53	1.66	2.45	5.21			
NJ 30	0.02	0.03	0.06	0.04	0.05	0.07	0.09	0.10	0.03	0.04	0.07	0.04	0.06	0.12			
NJ 31	47.55	51.78	59.41	61.43	65.28	76.55	91.76	104.15	54.96	56.62	80.23	60.61	70.31	125.18			
NI 32	23.67	29.51	36.26	42.00	47.97	63.51	76.13	86.40	33.45	41.89	67.80	37.00	51.66	103.85			
NC 34	3.00	3.70	4.40	4.89	5.45	7.04	8.64	9.58	4.05	4.80	7.67	4.49	5.87	11.51			
ND 35	0.31	0.21	0.19	0.17	0.16	0.17	0.20	0.23	0.17	0.14	0.18	0.19	0.17	0.28			
OH 36	42.72	36.14	39.66	42.32	44.44	51.74	62.03	70.40	36.99	38.98	55.15	40.47	47.86	84.62			
OK 37	2.23	2.45	2.70	2.89	3.06	3.63	4.36	4.95	2.51	2.70	3.96	2.76	3.30	5.94			

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONG)

ANL/ARAH/INDVOC 11/22/85

VOC CAT 3

	REFERENCE CASE							LOW CASE			HIGH CASE				
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030	
PA	39	25.32	23.92	26.63	27.44	28.85	32.38	38.81	44.05	24.35	24.79	34.22	27.17	31.07	52.95
RI	41	0.34	0.38	0.45	0.51	0.55	0.65	0.78	0.88	0.41	0.46	0.68	0.45	0.59	1.06
SC	42	2.53	2.85	3.18	3.44	3.69	4.44	5.32	6.04	2.98	3.28	4.89	3.25	3.97	7.26
SD	43	0.32	0.35	0.40	0.44	0.47	0.58	0.69	0.79	0.37	0.41	0.61	0.40	0.51	0.94
TH	44	0.28	0.39	0.43	0.45	0.47	0.53	0.64	0.73	0.40	0.42	0.57	0.44	0.51	0.87
TX	45	143.07	171.62	200.43	225.17	250.27	315.65	378.36	429.45	186.01	220.92	341.52	204.54	269.55	516.17
UT	46	1.21	1.12	1.31	1.40	1.50	1.71	2.04	2.32	1.23	1.32	1.81	1.34	1.62	2.79
VT	47	0.06	0.07	0.09	0.10	0.11	0.14	0.17	0.19	0.08	0.09	0.14	0.09	0.12	0.23
VA	48	2.34	2.78	3.27	3.62	4.02	5.20	6.23	7.07	3.05	3.61	5.79	3.34	4.33	8.50
WA	49	103.54	126.30	149.39	172.45	193.74	246.86	295.90	335.85	137.71	166.44	260.22	152.43	208.67	403.66
HI	51	1.50	1.61	1.77	1.86	1.94	2.26	2.71	3.07	1.60	1.64	2.37	1.81	2.09	3.70
WY	52	0.61	0.41	0.51	0.56	0.59	0.65	0.78	0.88	0.48	0.51	0.68	0.52	0.63	1.06

VOC CAT 4

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030	
AL	1	0.26	0.25	0.25	0.26	0.27	0.31	0.35	0.39	0.24	0.25	0.32	0.25	0.23	0.47
AZ	3	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01
CA	5	202.87	209.68	225.65	231.96	243.66	279.20	320.77	357.90	213.58	219.55	283.32	225.63	259.22	424.23
CO	6	0.04	0.04	0.04	0.04	0.05	0.05	0.06	0.07	0.04	0.04	0.06	0.04	0.05	0.09
DE	8	0.04	0.04	0.04	0.05	0.05	0.06	0.07	0.08	0.04	0.05	0.06	0.04	0.05	0.10
FL	10	0.04	0.04	0.04	0.05	0.06	0.03	0.09	0.11	0.04	0.05	0.03	0.04	0.06	0.13
GA	11	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.01	0.02	0.02	0.01	0.02	0.03
ID	13	0.13	0.13	0.14	0.15	0.16	0.20	0.23	0.26	0.13	0.14	0.20	0.14	0.17	0.30
IL	14	0.59	0.74	0.76	0.75	0.76	0.83	1.01	1.12	0.71	0.68	0.88	0.76	0.81	1.33
IN	15	0.92	0.86	0.92	0.98	1.02	1.20	1.38	1.54	0.85	0.90	1.22	0.92	1.08	1.83
KS	17	0.53	0.50	0.54	0.58	0.60	0.71	0.81	0.91	0.51	0.53	0.71	0.54	0.64	1.07
KY	18	0.26	0.27	0.23	0.30	0.32	0.40	0.45	0.51	0.26	0.28	0.40	0.28	0.34	0.60
LA	19	2.15	1.83	2.25	2.45	2.50	2.85	3.29	3.67	2.16	2.31	2.95	2.25	2.66	4.35
ME	20	0.65	0.71	0.79	0.89	0.93	1.13	1.30	1.45	0.73	0.81	1.13	0.79	0.99	1.72
MA	22	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
MI	23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MI	24	6.23	6.05	6.65	6.79	6.82	7.69	8.84	9.86	5.93	5.85	7.59	6.65	7.25	11.69
MS	25	2.39	2.45	2.53	2.70	2.85	3.53	4.05	4.52	2.42	2.55	3.56	2.55	3.04	5.36
ND	26	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03
NE	28	0.34	0.32	0.36	0.35	0.34	0.34	0.39	0.44	0.32	0.28	0.32	0.36	0.36	0.52
NH	29	0.08	0.09	0.10	0.12	0.14	0.19	0.22	0.25	0.10	0.13	0.21	0.10	0.15	0.30
NJ	31	45.93	45.33	49.23	48.71	43.95	53.93	61.96	69.13	44.97	42.31	52.77	49.23	52.08	81.95
NC	32	0.36	0.39	0.45	0.50	0.54	0.64	0.79	0.88	0.42	0.48	0.69	0.45	0.53	1.05
NC	33	0.99	1.09	1.22	1.33	1.45	1.87	2.14	2.39	1.15	1.32	1.93	1.22	1.54	2.04
OH	35	7.28	6.11	6.32	6.56	6.79	8.01	9.20	10.26	5.95	6.03	8.05	6.32	7.23	12.16
OK	37	0.52	0.51	0.53	0.55	0.59	0.70	0.81	0.90	0.51	0.54	0.74	0.53	0.62	1.07
PA	39	0.54	0.46	0.49	0.51	0.54	0.64	0.73	0.82	0.47	0.49	0.65	0.49	0.57	0.97
RI	41	0.30	0.30	0.33	0.37	0.39	0.46	0.53	0.59	0.31	0.34	0.46	0.33	0.42	0.70
SC	42	1.71	1.60	1.61	1.65	1.69	1.92	2.20	2.46	1.54	1.56	2.02	1.61	1.80	2.91

VOC CAT 4

		REFERENCE CASE							LOW CASE			HIGH CASE			
		1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
TH	44	0.40	0.49	0.51	0.53	0.54	0.61	0.70	0.79	0.49	0.49	0.63	0.51	0.58	0.93
TX	45	7.25	7.39	7.75	7.93	8.11	9.29	10.63	11.91	7.23	7.21	9.35	7.75	8.63	14.12
UT	46	0.07	0.06	0.06	0.06	0.07	0.08	0.09	0.10	0.06	0.06	0.08	0.05	0.07	0.12
VT	47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VA	48	0.51	0.56	0.63	0.68	0.74	0.97	1.11	1.24	0.60	0.69	1.03	0.63	0.79	1.47
WA	49	5.75	5.90	6.58	7.39	8.12	10.26	11.79	13.15	6.20	7.22	10.30	6.53	8.64	15.59
HI	51	1.87	1.85	1.92	2.01	2.10	2.52	2.90	3.23	1.80	1.87	2.55	1.92	2.24	3.83
NY	52	0.04	0.02	0.03	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.05

VOC CAT 5

		1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL	1	0.76	0.67	0.75	0.80	0.85	0.98	1.15	1.30	0.70	0.75	1.02	0.76	0.91	1.56
AZ	3	0.76	0.92	1.16	1.35	1.56	2.03	2.46	2.78	1.07	1.35	2.13	1.17	1.67	3.33
CA	5	139.25	156.23	175.91	185.10	198.57	228.62	270.17	305.14	164.33	174.39	237.49	177.87	213.13	355.35
CO	6	2.01	2.33	2.83	3.13	3.40	4.17	4.92	5.56	2.57	2.90	4.25	2.86	3.65	6.66
CT	7	0.38	0.41	0.49	0.57	0.62	0.76	0.90	1.02	0.45	0.52	0.77	0.50	0.67	1.22
DE	8	0.14	0.16	0.19	0.21	0.23	0.29	0.34	0.38	0.17	0.20	0.29	0.19	0.25	0.46
FL	10	2.65	2.77	3.35	4.02	4.70	6.73	7.95	8.93	3.19	4.15	6.97	3.40	5.09	10.76
GA	11	1.15	1.41	1.67	1.86	2.08	2.70	3.19	3.61	1.56	1.66	2.91	1.69	2.23	4.32
ID	13	0.27	0.29	0.32	0.36	0.39	0.48	0.56	0.63	0.29	0.33	0.43	0.32	0.42	0.76
IL	14	2.46	1.83	1.93	1.98	2.01	2.24	2.65	2.99	1.76	1.71	2.26	1.96	2.16	3.58
IN	15	2.57	2.56	2.89	3.13	3.31	3.90	4.61	5.21	2.65	2.85	4.02	2.93	3.56	6.24
KS	17	3.07	3.03	3.47	3.72	3.85	4.35	5.15	5.81	3.17	3.28	4.41	3.51	4.13	6.96
KY	18	3.16	3.52	3.86	4.14	4.46	5.43	6.41	7.24	3.57	3.88	5.58	3.90	4.73	8.67
LA	19	5.17	4.77	5.55	5.92	6.31	7.92	9.36	10.57	5.04	5.50	8.20	5.61	6.77	12.65
NJ	20	3.53	4.14	4.85	5.57	5.94	7.22	8.53	9.64	4.40	5.01	7.34	4.91	6.38	11.54
MD	21	143.13	159.58	181.05	198.18	219.79	285.22	337.05	380.66	169.14	192.67	310.37	183.05	235.90	455.79
MA	22	8.55	9.07	10.26	11.35	12.10	14.32	16.92	19.11	9.39	10.22	14.53	10.38	12.99	22.89
MI	23	2.23	2.23	2.42	2.58	2.74	3.25	3.84	4.34	2.22	2.32	3.24	2.45	2.94	5.19
RI	24	8.06	8.32	9.62	10.05	10.27	11.56	13.66	15.43	8.47	8.51	11.59	9.72	11.02	18.47
MS	25	2.42	2.65	2.93	3.13	3.37	4.15	4.90	5.54	2.69	2.92	4.27	2.96	3.62	6.63
MO	26	4.28	4.26	4.57	4.80	4.99	5.62	6.65	7.51	4.25	4.39	5.95	4.62	5.36	8.99
MT	27	0.70	0.66	0.78	0.85	0.92	1.09	1.29	1.46	0.72	0.79	1.12	0.78	0.99	1.75
NE	28	0.67	0.68	0.80	0.84	0.87	1.00	1.18	1.34	0.72	0.73	0.99	0.80	0.93	1.60
NV	29	0.71	0.73	0.85	1.01	1.15	1.55	1.83	2.07	0.81	1.04	1.67	0.87	1.24	2.48
NH	30	4.03	4.85	5.78	6.65	7.24	8.90	10.52	11.88	5.23	6.10	9.09	5.85	7.77	14.22
NJ	31	30.92	29.63	33.78	34.28	36.20	41.62	49.13	55.55	31.04	31.19	42.20	34.16	38.85	66.51
NM	32	4.60	4.91	5.73	6.03	6.30	7.18	8.49	9.59	5.05	5.24	7.17	5.80	6.76	11.48
NC	34	0.18	0.21	0.25	0.28	0.31	0.40	0.47	0.53	0.23	0.27	0.42	0.25	0.33	0.63
OH	36	1.53	1.46	1.58	1.68	1.77	2.09	2.47	2.79	1.46	1.53	2.14	1.60	1.90	3.34
OK	37	29.32	29.23	30.90	32.41	33.82	38.28	45.24	51.09	29.10	30.17	41.07	31.25	36.30	61.18
PA	39	27.64	28.70	32.50	35.46	33.49	46.78	55.23	62.43	30.20	33.23	47.82	32.87	41.31	74.75
RI	41	0.02	0.02	0.03	0.03	0.03	0.04	0.05	0.05	0.03	0.03	0.04	0.03	0.04	0.06
SC	42	3.52	3.52	3.73	3.93	4.11	4.69	5.54	6.26	3.52	3.67	5.04	3.77	4.41	7.49

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAM/INDVOC 11/22/85

VOC CAT 5

		REFERENCE CASE							LOW CASE			HIGH CASE			
		1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
SD	43	1.23	1.26	1.41	1.56	1.67	2.09	2.41	2.72	1.31	1.47	2.10	1.43	1.80	3.26
TH	44	2.25	2.88	3.17	3.34	3.59	4.26	5.03	5.63	2.95	3.11	4.30	3.20	3.85	6.81
TX	45	85.02	93.23	100.70	105.28	110.16	128.30	151.61	171.23	93.35	96.02	132.69	101.81	118.23	205.03
UT	46	0.41	0.39	0.46	0.50	0.55	0.65	0.77	0.87	0.43	0.43	0.67	0.46	0.59	1.04
VT	47	0.31	0.35	0.41	0.47	0.51	0.64	0.75	0.85	0.37	0.43	0.65	0.41	0.55	1.02
VA	48	1.36	1.51	1.80	2.03	2.29	3.04	3.59	4.06	1.68	2.05	3.27	1.82	2.46	4.86
WA	49	4.23	4.54	5.32	6.10	6.81	8.54	10.09	11.40	4.92	5.87	8.75	5.38	7.31	13.65
WI	51	2.65	2.35	2.97	3.30	3.41	3.92	4.63	5.23	2.75	2.93	4.12	3.00	3.66	6.26
WY	52	5.86	3.76	4.68	5.07	5.32	5.85	6.91	7.80	4.34	4.61	5.99	4.73	5.71	9.34

VOC CAT 6

		1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
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NJ	31	0.05	0.04	0.05	0.05	0.05	0.05	0.06	0.07	0.05	0.04	0.05	0.05	0.05	0.08
PA	39	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.02	0.03
TX	45	0.33	0.34	0.36	0.37	0.38	0.43	0.49	0.54	0.34	0.34	0.43	0.36	0.40	0.64

VOC CAT 7

		1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
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AL	1	2.47	2.59	3.12	3.50	3.80	4.58	5.53	6.30	2.83	3.20	4.82	3.21	4.11	7.58
AZ	3	0.09	0.11	0.14	0.17	0.19	0.26	0.31	0.36	0.13	0.16	0.27	0.15	0.21	0.43
AR	4	0.37	0.21	0.28	0.35	0.39	0.48	0.58	0.66	0.26	0.37	0.59	0.29	0.42	0.80
CA	5	44.78	54.35	63.72	68.57	74.94	87.23	105.43	120.03	58.59	63.46	92.12	65.43	80.89	144.59
CO	6	0.19	0.25	0.31	0.35	0.39	0.49	0.59	0.67	0.28	0.33	0.51	0.32	0.43	0.81
CT	7	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.04	0.02	0.02	0.03	0.02	0.02	0.05
DE	8	0.43	0.47	0.52	0.56	0.60	0.69	0.84	0.95	0.43	0.52	0.76	0.53	0.64	1.15
FL	10	0.04	0.04	0.05	0.07	0.08	0.11	0.14	0.16	0.05	0.07	0.12	0.06	0.08	0.19
GA	11	0.23	0.31	0.39	0.43	0.49	0.64	0.78	0.83	0.35	0.42	0.71	0.39	0.53	1.07
IL	14	8.66	9.41	10.96	12.09	13.03	15.39	18.60	21.18	9.77	10.78	15.95	11.26	14.07	25.51
IH	15	1.94	2.08	2.32	2.47	2.59	2.96	3.57	4.07	2.11	2.16	3.09	2.38	2.80	4.90
KS	17	10.42	10.81	12.89	14.26	15.12	17.33	20.94	23.84	11.94	12.84	18.30	13.23	16.32	23.72
KY	18	1.02	1.11	1.32	1.43	1.64	2.04	2.47	2.81	1.18	1.35	2.11	1.36	1.77	3.38
LA	19	3917.31	4689.41	5565.32	6301.38	7012.77	8933.03	10797.28	12292.12	5123.05	6120.01	9730.20	5714.57	7569.81	11480.03
ME	20	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.04	0.02	0.02	0.03	0.02	0.03	0.05
ID	21	16.70	19.89	22.43	23.30	24.48	28.09	33.95	38.66	19.73	20.00	29.33	23.03	26.42	46.56
MA	22	0.07	0.09	0.10	0.12	0.13	0.15	0.19	0.21	0.09	0.10	0.16	0.10	0.14	0.26
HJ	23	19.07	20.83	23.75	24.99	26.47	30.46	36.82	41.91	20.28	20.93	30.07	24.39	28.57	50.49
HII	24	0.06	0.07	0.08	0.09	0.09	0.11	0.13	0.15	0.07	0.08	0.11	0.09	0.10	0.18
HO	26	2.42	2.68	3.12	3.34	3.48	3.91	4.73	5.33	2.74	2.80	3.96	3.21	3.76	6.49
HT	27	1.40	1.45	1.78	1.98	2.19	2.65	3.20	3.64	1.63	1.84	2.76	1.83	2.35	4.39
HE	28	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.00	0.01	0.01
IV	29	0.01	0.02	0.02	0.03	0.03	0.04	0.05	0.06	0.02	0.03	0.05	0.02	0.03	0.07
NI	30	3.20	4.26	5.27	6.19	6.86	8.57	10.36	11.79	4.75	5.60	8.93	5.41	7.41	14.20

VOC CAT 7

		REFERENCE CASE							LOW CASE			HIGH CASE			
		1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
NJ	31	56.85	55.93	66.59	68.85	74.58	87.72	106.02	120.70	60.06	62.22	90.99	68.37	80.50	145.39
MI	32	1.50	1.77	2.13	2.29	2.43	2.80	3.39	3.86	1.86	1.96	2.86	2.19	2.62	4.65
NC	34	0.50	0.65	0.79	0.90	1.02	1.33	1.61	1.84	0.72	0.87	1.43	0.81	1.10	2.21
OH	35	0.25	0.80	0.90	0.98	1.05	1.25	1.51	1.71	0.83	0.89	1.31	0.93	1.13	2.06
OK	37	1.20	1.33	1.43	1.59	1.68	1.91	2.31	2.63	1.35	1.43	2.05	1.52	1.81	3.17
OR	38	6.11	6.82	8.13	9.44	10.78	13.20	16.69	19.00	7.40	8.96	14.34	8.35	11.63	22.85
PA	39	402.02	354.91	410.46	430.92	473.20	549.32	663.97	755.91	382.96	412.59	591.21	421.47	516.83	910.53
RI	41	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.04	0.02	0.02	0.03	0.02	0.02	0.04
SC	42	0.10	0.13	0.16	0.18	0.20	0.27	0.32	0.37	0.14	0.17	0.29	0.16	0.22	0.45
TH	44	0.53	0.71	0.81	0.87	0.92	1.05	1.23	1.46	0.74	0.77	1.11	0.84	1.00	1.76
TX	45	39.39	45.35	52.02	56.42	60.26	70.19	84.24	96.59	47.23	50.61	73.82	53.42	65.05	116.35
UT	46	0.21	0.20	0.24	0.27	0.29	0.33	0.40	0.46	0.23	0.25	0.35	0.25	0.31	0.55
VT	47	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.01	0.01	0.02	0.01	0.02	0.03
VA	48	0.35	0.41	0.50	0.58	0.66	0.89	1.07	1.22	0.46	0.57	0.97	0.52	0.71	1.47
WA	49	0.03	0.10	0.12	0.14	0.16	0.20	0.24	0.27	0.11	0.13	0.21	0.12	0.17	0.33
WI	51	0.42	0.49	0.55	0.61	0.66	0.81	0.98	1.11	0.51	0.55	0.85	0.57	0.72	1.34
WY	52	0.06	0.04	0.05	0.06	0.06	0.07	0.08	0.09	0.05	0.05	0.07	0.05	0.07	0.11

VOC CAT 8

		1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL	1	5.03	4.91	5.09	5.10	5.32	5.90	6.68	7.43	4.83	4.86	6.02	5.09	5.64	8.77
AR	4	0.27	0.14	0.17	0.20	0.22	0.26	0.29	0.32	0.16	0.22	0.29	0.17	0.23	0.38
CA	5	15.94	19.52	21.44	20.93	21.86	25.00	28.30	31.48	19.93	19.65	24.56	21.44	23.18	37.17
DE	8	5.46	5.33	5.52	5.53	5.77	6.40	7.25	8.06	5.24	5.27	6.53	5.52	6.12	9.52
IL	14	3.59	2.29	2.29	2.21	2.21	2.34	2.65	2.94	2.11	1.92	2.23	2.29	2.35	3.48
IH	15	0.60	0.54	0.65	0.70	0.72	0.77	0.87	0.97	0.62	0.66	0.78	0.65	0.76	1.14
KS	17	2.18	2.01	2.27	2.35	2.43	2.68	3.03	3.33	2.14	2.18	2.64	2.27	2.58	3.99
KY	18	2.04	2.39	2.57	2.55	2.70	2.98	3.37	3.75	2.43	2.43	2.94	2.57	2.85	4.43
LA	19	35.21	31.32	39.10	41.74	43.48	49.63	56.19	62.51	37.07	39.69	49.49	39.10	46.11	73.80
HI	23	7.73	6.29	5.68	5.22	5.21	5.54	6.27	6.98	5.51	4.79	5.65	5.68	5.53	8.24
MS	25	0.10	0.11	0.12	0.12	0.13	0.15	0.17	0.19	0.11	0.11	0.15	0.12	0.14	0.23
ND	26	0.66	0.65	0.67	0.67	0.70	0.77	0.83	0.93	0.63	0.64	0.79	0.67	0.74	1.15
NJ	31	0.08	0.06	0.07	0.06	0.07	0.07	0.08	0.09	0.07	0.05	0.07	0.07	0.07	0.11
NY	33	25.10	23.33	21.69	22.51	22.17	27.25	30.85	34.32	20.13	19.68	27.02	21.69	23.51	40.51
ND	35	0.45	0.44	0.46	0.46	0.48	0.53	0.60	0.67	0.43	0.44	0.54	0.46	0.51	0.79
OH	35	1.13	0.79	0.84	0.86	0.89	0.99	1.12	1.25	0.80	0.81	0.93	0.84	0.95	1.48
OK	37	2.61	2.57	2.68	2.69	2.82	3.16	3.53	3.98	2.54	2.58	3.23	2.68	2.99	4.70
PA	39	6.58	5.16	5.64	5.54	6.04	6.67	7.55	8.40	5.35	5.49	6.69	5.64	6.40	9.92
TX	45	126.76	132.60	136.19	133.81	137.14	149.71	169.49	188.55	128.28	122.30	146.77	135.19	145.40	222.61
UT	46	0.26	0.22	0.25	0.26	0.27	0.30	0.34	0.38	0.24	0.25	0.30	0.25	0.29	0.45
WA	49	1.64	1.41	1.70	1.81	1.94	2.20	2.49	2.77	1.60	1.74	2.13	1.70	2.06	3.28
WI	51	0.36	0.25	0.37	0.41	0.41	0.45	0.50	0.56	0.35	0.38	0.45	0.37	0.44	0.66
WY	52	1.24	0.73	0.95	0.98	1.03	1.11	1.25	1.40	0.89	0.91	1.03	0.95	1.09	1.65

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

AML/ARAH/INDVOC 11/22/85

VOC CAT 9

	REFERENCE CASE							LOW CASE			HIGH CASE			
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AR 4	0.51	0.26	0.32	0.37	0.40	0.48	0.54	0.60	0.30	0.40	0.55	0.32	0.42	0.71
CA 5	40.55	45.11	48.47	48.26	51.22	57.80	65.49	72.90	45.71	46.15	57.43	48.46	54.26	85.98
IL 14	0.69	0.41	0.40	0.39	0.33	0.41	0.46	0.51	0.37	0.33	0.39	0.40	0.41	0.61
IN 15	5.91	5.44	6.33	6.88	6.91	7.46	8.45	9.40	6.07	6.35	7.64	6.33	7.32	11.09
KS 17	3.56	3.32	3.65	3.20	3.85	4.28	4.85	5.40	3.45	3.46	4.23	3.65	4.09	6.37
KY 18	5.21	6.20	6.51	6.56	6.70	7.46	8.46	9.41	6.14	6.03	7.41	6.51	7.09	11.10
LA 19	1.01	0.92	1.13	1.21	1.23	1.39	1.57	1.75	1.07	1.12	1.39	1.13	1.30	2.05
HI 23	1.94	1.61	1.42	1.31	1.28	1.37	1.55	1.72	1.37	1.17	1.40	1.42	1.35	2.03
NH 24	2.41	2.53	2.67	2.67	2.68	2.98	3.33	3.76	2.51	2.44	2.99	2.67	2.84	4.44
VT 27	5.22	4.90	5.56	5.02	6.16	7.24	8.20	9.13	5.19	5.45	7.06	5.56	6.53	10.77
NJ 31	0.23	0.18	0.20	0.18	0.19	0.21	0.24	0.26	0.19	0.17	0.20	0.20	0.20	0.31
OH 36	0.48	0.38	0.39	0.39	0.39	0.44	0.49	0.55	0.36	0.34	0.42	0.39	0.41	0.65
OK 37	2.47	2.41	2.51	2.59	2.80	3.65	4.14	4.60	2.35	2.57	3.70	2.51	2.97	5.43
PA 39	19.63	15.63	16.70	16.50	17.55	19.58	22.19	24.69	15.87	15.99	19.73	16.70	18.60	29.13
TX 45	46.85	49.61	50.05	49.54	49.61	51.66	61.94	68.94	46.99	44.24	53.80	50.05	52.55	81.31
UT 46	3.87	3.40	3.77	3.87	4.05	4.51	5.11	5.69	3.56	3.62	4.41	3.77	4.29	6.71
WA 49	0.33	0.28	0.33	0.36	0.38	0.43	0.49	0.54	0.32	0.34	0.43	0.33	0.40	0.64
WI 51	0.07	0.05	0.07	0.03	0.03	0.09	0.10	0.11	0.07	0.07	0.09	0.07	0.09	0.13
WY 52	7.44	4.76	5.63	5.91	6.05	6.56	7.44	8.23	5.29	5.35	6.42	5.68	6.41	9.76

VOC CAT 10

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AZ 3	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02
CA 5	5.57	5.79	6.55	6.72	7.23	8.25	9.34	10.38	6.19	6.55	8.25	6.55	7.66	12.24
KS 17	0.37	0.32	0.33	0.40	0.41	0.47	0.53	0.59	0.36	0.37	0.46	0.33	0.44	0.69
KY 18	0.44	0.49	0.55	0.56	0.59	0.66	0.75	0.83	0.52	0.53	0.66	0.55	0.62	0.93
HI 23	0.35	0.27	0.25	0.24	0.24	0.26	0.29	0.33	0.25	0.22	0.27	0.25	0.25	0.39
NH 24	0.57	0.55	0.62	0.63	0.65	0.73	0.82	0.92	0.53	0.59	0.73	0.62	0.69	1.08
HO 26	0.89	0.83	0.89	0.91	0.95	1.07	1.21	1.35	0.84	0.87	1.11	0.89	1.00	1.59
OK 37	1.35	1.26	1.34	1.37	1.43	1.62	1.84	2.04	1.27	1.32	1.67	1.34	1.52	2.41
PA 39	1.59	1.19	1.34	1.34	1.47	1.65	1.87	2.08	1.27	1.35	1.63	1.34	1.55	2.45
TX 45	785.41	781.01	825.94	830.34	852.41	949.64	1074.37	1194.85	778.50	766.00	910.61	825.94	902.63	1403.43
UT 46	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
WI 51	0.05	0.04	0.07	0.07	0.07	0.08	0.09	0.10	0.06	0.07	0.05	0.07	0.08	0.12
WY 52	0.64	0.38	0.48	0.51	0.53	0.58	0.66	0.74	0.45	0.47	0.57	0.48	0.56	0.87

VOC CAT 11

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
CA 5	0.84	0.98	1.03	1.01	1.06	1.18	1.33	1.48	0.97	0.95	1.15	1.03	1.12	1.74
CO 6	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01
DE 8	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.02	0.02
CA 11	12.40	12.83	12.75	12.50	12.71	14.03	15.87	17.65	12.07	11.58	14.22	12.75	13.46	20.81

VOC CAT 11

	REFERENCE CASE							LOI CASE			HIGH CASE			
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
KS 17	0.50	0.49	0.53	0.53	0.54	0.59	0.67	0.74	0.50	0.48	0.53	0.53	0.57	0.28
KY 18	0.03	0.04	0.04	0.04	0.04	0.05	0.05	0.06	0.04	0.04	0.05	0.04	0.04	0.07
LA 19	0.21	0.20	0.24	0.25	0.25	0.28	0.32	0.36	0.22	0.23	0.23	0.24	0.27	0.42
HT 27	0.66	0.64	0.71	0.73	0.77	0.89	1.01	1.12	0.67	0.68	0.86	0.71	0.81	1.32
HJ 31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
HD 35	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OK 37	8.79	9.10	9.04	8.26	9.01	9.95	11.25	12.52	8.55	8.21	10.03	9.04	9.54	14.75
PA 39	0.05	0.04	0.04	0.04	0.05	0.05	0.06	0.05	0.04	0.04	0.05	0.04	0.05	0.07
TX 45	8.79	9.75	9.60	9.23	9.22	10.02	11.34	12.61	9.01	8.20	9.75	9.60	9.76	14.85
UT 46	0.04	0.04	0.04	0.04	0.04	0.05	0.06	0.06	0.04	0.04	0.05	0.04	0.05	0.07
WA 49	23.72	21.53	24.89	26.02	27.18	30.74	34.77	39.67	23.44	24.31	30.13	24.89	28.78	45.58
HI 51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
HY 52	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03

VOC CAT 12

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	22.91	22.99	24.07	24.39	25.35	28.90	32.99	36.76	22.44	22.68	29.37	24.11	26.98	43.48
AZ 3	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.01
AR 4	0.06	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.04	0.05	0.07	0.04	0.06	0.09
CA 5	2.30	2.59	2.26	2.90	3.10	3.57	4.07	4.54	2.66	2.74	3.52	2.87	3.30	5.37
CO 6	6.50	6.53	6.81	6.90	7.17	8.18	9.34	10.40	6.35	6.42	8.33	6.82	7.63	12.31
FL 10	0.03	0.03	0.04	0.04	0.04	0.04	0.05	0.05	0.03	0.03	0.04	0.04	0.04	0.06
GA 11	0.87	0.88	0.91	0.93	0.96	1.10	1.25	1.40	0.85	0.86	1.12	0.92	1.02	1.65
ID 13	0.06	0.06	0.05	0.06	0.07	0.03	0.09	0.10	0.06	0.06	0.08	0.06	0.07	0.11
IL 14	3.22	2.22	2.27	2.24	2.25	2.47	2.82	3.14	2.04	1.92	2.35	2.27	2.40	3.72
IN 15	12.07	11.25	13.47	14.73	15.09	16.59	18.94	21.10	12.72	13.59	16.87	13.50	16.07	24.96
IA 16	0.11	0.11	0.11	0.12	0.12	0.14	0.16	0.17	0.11	0.11	0.14	0.11	0.13	0.21
KS 17	0.05	0.05	0.06	0.06	0.05	0.07	0.08	0.09	0.05	0.06	0.07	0.06	0.07	0.11
KY 18	0.27	0.33	0.35	0.36	0.37	0.42	0.48	0.54	0.33	0.33	0.41	0.35	0.39	0.63
LA 19	0.37	0.34	0.42	0.45	0.46	0.52	0.60	0.67	0.39	0.41	0.52	0.42	0.49	0.79
ME 20	0.03	0.05	0.06	0.06	0.07	0.03	0.09	0.10	0.05	0.06	0.07	0.05	0.07	0.12
ND 21	23.30	31.65	34.34	34.48	36.41	42.12	48.09	53.53	31.73	32.01	41.35	34.40	39.75	63.37
HA 22	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01
HI 23	0.22	0.20	0.21	0.19	0.19	0.21	0.24	0.27	0.19	0.17	0.21	0.21	0.20	0.31
IN 24	0.49	0.52	0.56	0.57	0.58	0.66	0.75	0.84	0.52	0.52	0.66	0.57	0.62	0.99
NS 25	0.05	0.05	0.06	0.06	0.06	0.07	0.03	0.09	0.05	0.05	0.07	0.06	0.07	0.11
ND 26	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.06	0.03	0.03	0.05	0.04	0.04	0.07
HT 27	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.03	0.01	0.02	0.02	0.02	0.02	0.03
HE 28	0.11	0.11	0.12	0.12	0.13	0.14	0.16	0.18	0.11	0.11	0.15	0.12	0.13	0.22
HV 29	0.06	0.06	0.06	0.07	0.07	0.08	0.09	0.10	0.05	0.06	0.08	0.05	0.07	0.12
HJ 31	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.03
HN 32	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.01
NC 33	0.36	0.34	0.36	0.35	0.35	0.38	0.43	0.49	0.33	0.34	0.44	0.36	0.40	0.64
ND 35	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.01

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAH/INDVOC 11/22/85

VOC CAT 12

	REFERENCE CASE							LOW CASE			HIGH CASE			
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
OH 36	8.63	6.17	6.63	6.85	7.10	8.11	9.26	10.32	6.22	6.35	8.02	6.64	7.56	12.20
OK 37	0.80	0.80	0.84	0.85	0.88	1.00	1.15	1.28	0.78	0.79	1.02	0.84	0.94	1.51
OR 33	0.15	0.15	0.17	0.18	0.18	0.20	0.23	0.26	0.16	0.16	0.20	0.17	0.19	0.30
PA 39	0.17	0.14	0.15	0.15	0.16	0.18	0.21	0.23	0.14	0.14	0.18	0.15	0.17	0.28
SC 42	0.28	0.28	0.29	0.30	0.31	0.35	0.40	0.45	0.27	0.28	0.36	0.29	0.33	0.53
SD 43	0.12	0.12	0.12	0.13	0.13	0.15	0.17	0.19	0.12	0.12	0.15	0.12	0.14	0.22
TH 44	0.11	0.14	0.16	0.16	0.16	0.19	0.21	0.24	0.14	0.15	0.18	0.16	0.18	0.23
TX 45	0.24	0.25	0.27	0.27	0.31	0.35	0.39	0.25	0.24	0.30	0.27	0.29	0.46	
UT 46	0.46	0.41	0.47	0.43	0.52	0.58	0.67	0.74	0.44	0.45	0.57	0.47	0.55	0.83
VA 48	0.12	0.12	0.12	0.12	0.13	0.15	0.17	0.19	0.11	0.11	0.15	0.12	0.14	0.22
IIA 49	0.03	0.02	0.03	0.03	0.03	0.04	0.04	0.05	0.03	0.03	0.04	0.03	0.03	0.06
IV 50	0.10	0.10	0.10	0.10	0.11	0.12	0.14	0.16	0.10	0.10	0.12	0.10	0.11	0.18
II 51	0.03	0.06	0.03	0.09	0.09	0.10	0.12	0.13	0.08	0.08	0.10	0.08	0.10	0.15
IY 52	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

VOC CAT 13

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
TX 45	2.86	2.84	3.00	3.02	3.10	3.46	3.91	4.35	2.83	2.79	3.43	3.00	3.29	5.13

VOC CAT 14

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	0.06	0.06	0.06	0.06	0.06	0.07	0.08	0.09	0.05	0.06	0.07	0.06	0.07	0.11
AZ 3	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.06	0.04	0.04	0.05	0.04	0.04	0.07
AR 4	0.15	0.07	0.09	0.11	0.12	0.14	0.16	0.18	0.09	0.12	0.16	0.09	0.12	0.21
CA 5	92.69	103.90	115.04	115.19	121.79	139.12	157.40	175.06	107.79	109.39	135.45	115.04	128.99	206.40
CO 6	0.45	0.43	0.45	0.45	0.47	0.53	0.60	0.67	0.43	0.43	0.54	0.45	0.50	0.79
DE 8	0.54	0.52	0.54	0.54	0.56	0.63	0.72	0.80	0.51	0.51	0.64	0.54	0.60	0.94
GA 11	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
IL 14	17.37	10.91	11.03	10.69	10.65	11.40	12.90	14.35	10.09	9.23	10.80	11.03	11.27	16.91
IN 15	91.62	81.75	93.20	106.91	109.37	118.48	134.04	149.07	93.92	100.12	120.01	98.21	115.84	175.75
KS 17	0.50	0.46	0.52	0.54	0.56	0.62	0.70	0.78	0.49	0.50	0.61	0.52	0.59	0.92
KY 18	0.65	0.75	0.82	0.83	0.86	0.96	1.09	1.21	0.77	0.77	0.94	0.82	0.91	1.43
LA 19	91.82	80.42	102.00	109.95	113.21	128.95	145.90	162.26	96.60	103.11	127.70	102.01	119.90	191.30
MD 21	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.03
MI 23	1.78	1.43	1.30	1.20	1.19	1.29	1.45	1.62	1.26	1.10	1.30	1.30	1.26	1.91
MI 24	1.73	1.76	1.91	1.92	1.96	2.19	2.48	2.76	1.80	1.78	2.17	1.91	2.03	3.25
MS 25	1.30	1.41	1.53	1.54	1.60	1.80	2.03	2.26	1.44	1.44	1.76	1.53	1.70	2.66
MO 26	0.17	0.16	0.17	0.17	0.18	0.20	0.23	0.25	0.16	0.16	0.20	0.17	0.19	0.30
MT 27	1.43	1.30	1.52	1.59	1.72	2.03	2.29	2.55	1.41	1.51	1.95	1.52	1.82	3.00
NE 28	0.05	0.05	0.05	0.05	0.05	0.06	0.07	0.07	0.05	0.05	0.06	0.05	0.06	0.09
NJ 31	6.59	5.17	5.83	5.30	5.53	6.20	7.01	7.80	5.49	4.98	5.93	5.83	5.91	9.20
NH 32	0.13	0.12	0.13	0.13	0.14	0.16	0.18	0.20	0.12	0.12	0.16	0.13	0.14	0.23

VOC CAT 14

REFERENCE CASE												LOW CASE			HIGH CASE		
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030	1990	2000	2030
ND	35	0.57	0.55	0.57	0.58	0.60	0.67	0.76	0.84	0.54	0.54	0.68	0.57	0.63	1.00		
OH	36	3.62	2.43	2.67	2.75	2.84	3.20	3.62	4.03	2.54	2.53	3.15	2.67	3.01	4.75		
OK	37	636.49	611.92	639.54	645.40	669.14	751.82	850.60	966.01	605.35	609.69	762.77	639.54	708.73	1115.38		
PA	39	2.44	1.89	2.03	2.06	2.23	2.50	2.82	3.14	1.97	2.02	2.49	2.08	2.36	3.70		
TN	44	0.29	0.37	0.40	0.40	0.42	0.47	0.53	0.59	0.37	0.37	0.45	0.40	0.46	0.69		
TX	45	1141.15	1175.96	1218.30	1206.54	1229.25	1361.28	1539.99	1712.76	1144.24	1094.14	1325.91	1218.41	1301.94	2019.39		
UT	46	1.50	1.28	1.46	1.50	1.60	1.79	2.03	2.25	1.38	1.43	1.73	1.46	1.70	2.66		
VA	48	101.41	97.50	101.90	102.85	106.61	119.79	135.53	150.73	96.45	97.14	121.53	101.90	112.92	177.71		
WA	49	0.85	0.71	0.87	0.93	0.99	1.14	1.29	1.44	0.82	0.89	1.12	0.87	1.05	1.70		
WV	50	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.02	0.02		
WI	51	0.03	0.02	0.03	0.04	0.04	0.04	0.04	0.05	0.03	0.03	0.04	0.03	0.04	0.06		
WY	52	1.77	1.10	1.36	1.41	1.47	1.61	1.82	2.02	1.26	1.30	1.55	1.35	1.55	2.38		

VOC CAT 15

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030			
AL	1	0.66	0.67	0.71	0.75	0.78	0.89	1.07	1.22	0.67	0.69	0.93	0.73	0.84	1.46		
CA	5	4.71	5.31	6.03	6.31	6.75	7.72	9.29	10.55	5.60	5.85	8.26	6.18	7.27	12.65		
IL	15	0.13	0.15	0.19	0.23	0.26	0.37	0.44	0.50	0.17	0.21	0.35	0.19	0.23	0.60		
KY	18	2.08	3.45	3.82	4.01	4.20	4.81	5.78	6.57	3.55	3.65	5.14	3.91	4.52	7.90		
LA	19	1.53	1.66	1.89	2.11	2.18	2.49	2.99	3.40	1.77	1.92	2.69	1.94	2.35	4.08		
ME	20	0.92	1.03	1.23	1.46	1.56	1.89	2.28	2.59	1.15	1.30	1.98	1.31	1.63	3.11		
MI	24	0.16	0.17	0.18	0.19	0.20	0.22	0.27	0.30	0.17	0.17	0.24	0.19	0.21	0.37		
NY	33	0.88	0.97	1.08	1.14	1.21	1.45	1.75	1.98	0.92	1.03	1.53	1.10	1.30	2.35		
NC	34	0.24	0.29	0.34	0.38	0.42	0.54	0.65	0.74	0.31	0.37	0.59	0.35	0.45	0.89		
PA	39	4.26	3.58	4.01	4.10	4.39	4.91	5.92	6.72	3.72	3.81	5.29	4.11	4.73	8.07		
SC	42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
TH	44	1.66	2.24	2.47	2.59	2.70	3.04	3.67	4.16	2.31	2.35	3.26	2.54	2.91	5.00		
TX	45	96.56	112.49	133.35	150.69	168.14	213.35	256.82	291.65	122.91	146.91	230.84	136.80	181.20	350.55		
VA	48	1.01	1.07	1.29	1.47	1.67	2.26	2.72	3.03	1.20	1.47	2.47	1.32	1.60	3.71		
WA	49	0.36	0.33	0.40	0.45	0.49	0.58	0.69	0.79	0.37	0.42	0.62	0.41	0.52	0.95		
WI	51	0.09	0.06	0.10	0.11	0.12	0.15	0.17	0.17	0.09	0.10	0.14	0.10	0.12	0.20		

VOC CAT 16

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030			
AL	1	0.05	0.04	0.05	0.06	0.06	0.07	0.09	0.10	0.04	0.05	0.07	0.05	0.07	0.11		
AZ	3	1.27	1.64	1.97	2.12	2.36	2.68	3.17	3.54	1.77	1.91	2.64	2.03	2.54	4.24		
AR	4	0.36	0.32	0.33	0.42	0.45	0.53	0.62	0.70	0.35	0.40	0.56	0.39	0.43	0.83		
CA	5	39.04	45.39	55.15	63.12	71.65	92.17	109.18	121.99	51.66	63.45	95.26	56.59	76.96	146.05		
CO	6	1.22	1.53	2.05	2.44	2.92	4.09	4.85	5.42	1.78	2.42	4.06	2.10	3.14	6.48		
CT	7	1.62	1.81	2.19	2.63	2.93	3.72	4.40	4.92	2.02	2.48	3.77	2.25	3.15	5.89		
DE	8	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.04	0.02	0.02	0.03	0.02	0.03	0.05		
DC	9	0.21	0.20	0.21	0.23	0.25	0.30	0.36	0.40	0.20	0.23	0.33	0.22	0.27	0.48		

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TCHs)

ANL/ARAH/INDVOC 11/22/05

VOC CAT 16

	REFERENCE CASE								LOW CASE			HIGH CASE		
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
FL 10	0.78	0.83	1.02	1.26	1.51	2.23	2.64	2.95	0.98	1.35	2.31	1.05	1.62	3.53
GA 11	0.38	0.45	0.55	0.63	0.71	0.94	1.12	1.25	0.52	0.65	1.02	0.56	0.77	1.49
IL 14	7.33	6.07	6.70	7.21	7.68	9.09	10.77	12.03	6.13	6.64	9.22	6.37	8.25	14.40
IN 15	0.59	0.60	0.69	0.76	0.83	1.02	1.21	1.35	0.63	0.72	1.05	0.70	0.99	1.61
IA 16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KS 17	5.03	5.05	5.91	6.59	7.12	8.59	10.18	11.37	5.52	6.22	8.73	6.07	7.65	13.62
KY 18	5.61	6.09	6.07	7.66	8.51	10.85	12.85	14.37	6.41	7.46	11.14	7.05	9.14	17.20
LA 19	4.96	4.57	5.93	6.85	7.34	8.80	10.43	11.65	5.65	6.63	9.24	6.03	7.89	13.95
ME 20	5.89	6.79	8.11	9.58	10.50	13.13	15.62	17.45	7.44	8.96	13.42	8.32	11.28	20.59
MD 21	3.85	4.34	5.02	5.66	6.44	8.64	10.24	11.44	4.75	5.89	9.42	5.15	6.92	13.69
MA 22	3.02	3.09	3.51	3.92	4.29	5.19	6.14	6.86	3.26	3.69	5.26	3.61	4.61	8.22
MI 24	4.35	4.56	5.36	5.77	6.05	7.04	8.34	9.32	4.79	5.10	7.09	5.50	6.50	11.15
ND 26	0.05	0.05	0.06	0.06	0.07	0.08	0.10	0.11	0.05	0.06	0.09	0.06	0.07	0.13
MT 27	0.07	0.09	0.11	0.12	0.13	0.16	0.19	0.21	0.10	0.12	0.17	0.11	0.14	0.26
HV 29	2.23	2.56	3.34	4.11	4.92	7.07	8.38	9.36	3.14	4.43	7.62	3.43	5.29	11.21
NJ 31	69.39	71.81	83.60	88.82	95.37	112.63	133.42	149.07	76.61	82.16	113.91	85.78	102.43	178.47
NC 34	26.55	27.82	33.15	37.57	41.83	51.85	61.42	68.63	30.21	36.49	53.42	34.02	44.98	82.17
OH 36	9.26	9.39	10.33	11.31	12.31	15.15	17.95	20.05	9.60	10.66	15.44	10.65	13.22	24.01
OK 37	0.50	0.55	0.65	0.74	0.82	1.04	1.23	1.38	0.60	0.73	1.03	0.66	0.89	1.65
OR 38	0.08	0.03	0.09	0.11	0.13	0.17	0.20	0.22	0.09	0.11	0.17	0.10	0.14	0.26
PA 39	22.06	21.86	24.87	27.16	29.65	35.78	42.38	47.35	23.13	25.73	36.53	25.52	31.85	56.69
RI 41	2.36	2.55	3.03	3.55	3.91	4.74	5.62	6.28	2.81	3.35	4.86	3.11	4.20	7.51
SC 42	48.12	49.73	59.15	66.91	74.07	90.12	106.76	119.28	53.59	64.16	92.08	60.69	79.55	142.81
TN 44	1.62	1.93	2.16	2.34	2.52	2.98	3.53	3.95	2.03	2.23	3.10	2.22	2.71	4.72
TX 45	54.13	60.31	68.17	75.80	83.84	105.23	124.72	139.35	64.21	74.69	110.03	69.95	90.05	166.83
UT 46	1.31	1.17	1.33	1.52	1.67	1.94	2.30	2.57	1.31	1.48	2.00	1.41	1.79	3.03
VA 48	7.33	8.66	10.44	11.93	13.64	18.33	21.71	24.26	9.82	12.38	19.83	10.71	14.65	29.04
WA 49	3.70	4.02	4.81	5.69	6.51	8.44	9.99	11.17	4.51	5.68	8.65	4.94	7.00	13.37
WI 51	4.13	4.33	4.23	5.39	5.03	7.27	8.61	9.62	4.55	5.13	7.52	5.01	6.32	11.52

VOC CAT 17

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	0.05	0.06	0.07	0.07	0.08	0.10	0.12	0.14	0.06	0.07	0.11	0.07	0.09	0.17
AZ 3	0.19	0.22	0.27	0.33	0.39	0.52	0.63	0.72	0.26	0.35	0.58	0.23	0.41	0.85
CA 5	8.95	10.18	12.10	13.27	14.57	17.68	21.20	24.19	11.22	12.86	19.28	12.33	15.63	28.95
CO 6	0.01	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.02	0.03	0.04	0.02	0.03	0.06
DE 8	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01
FL 10	1.17	1.23	1.53	1.90	2.25	3.26	3.91	4.46	1.51	2.03	3.59	1.61	2.41	5.34
GA 11	0.76	0.93	1.07	1.19	1.32	1.68	2.01	2.30	1.01	1.20	1.92	1.09	1.41	2.75
IL 14	0.06	0.05	0.05	0.05	0.05	0.06	0.08	0.09	0.05	0.05	0.07	0.05	0.06	0.10
IN 15	0.24	0.24	0.23	0.31	0.33	0.38	0.46	0.52	0.27	0.30	0.53	0.29	0.36	0.63
KS 17	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.01	0.03
KY 18	1.52	1.71	1.91	2.03	2.30	2.92	3.50	4.00	1.77	2.03	3.18	1.94	2.47	4.79
LA 19	0.84	0.82	1.03	1.19	1.28	1.54	1.84	2.10	0.98	1.16	1.71	1.05	1.37	2.52

VOC CAT 17

	REFERENCE CASE							LOW CASE			HIGH CASE			
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
ME 20	0.41	0.49	0.58	0.68	0.73	0.90	1.03	1.23	0.54	0.63	0.97	0.60	0.78	1.47
MI 24	0.36	0.40	0.45	0.47	0.49	0.56	0.67	0.77	0.42	0.43	0.62	0.46	0.53	0.92
MD 26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MT 27	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02
NV 29	0.12	0.13	0.16	0.21	0.25	0.37	0.44	0.50	0.16	0.23	0.42	0.17	0.27	0.60
IL 31	0.68	0.81	0.94	0.98	1.03	1.17	1.40	1.60	0.85	0.88	1.25	0.95	1.10	1.92
NC 34	0.13	0.22	0.26	0.29	0.33	0.42	0.51	0.58	0.24	0.29	0.43	0.26	0.35	0.69
OH 36	6.26	6.57	7.23	7.71	8.27	9.97	11.95	13.64	6.67	7.22	10.79	7.37	8.87	16.33
OK 37	0.20	0.25	0.29	0.32	0.36	0.47	0.57	0.65	0.27	0.33	0.53	0.29	0.39	0.78
PA 39	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.01
RI 41	0.01	0.02	0.02	0.02	0.03	0.04	0.04	0.04	0.02	0.02	0.03	0.02	0.03	0.05
TN 44	1.07	1.46	1.63	1.73	1.84	2.13	2.55	2.91	1.56	1.65	2.35	1.66	1.98	3.48
TX 45	1.69	1.97	2.31	2.73	3.11	4.01	4.81	5.49	2.19	2.81	4.46	2.35	3.33	6.57
UT 46	0.08	0.08	0.09	0.10	0.11	0.12	0.15	0.17	0.09	0.09	0.13	0.09	0.11	0.20
VA 43	0.23	0.27	0.32	0.37	0.42	0.56	0.67	0.77	0.50	0.58	0.64	0.33	0.45	0.92
WA 49	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.05	0.02	0.02	0.04	0.02	0.03	0.06
HI 51	1.23	1.33	1.50	1.62	1.74	2.10	2.52	2.83	1.39	1.56	2.31	1.53	1.87	3.44

VOC CAT 18

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
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PA 39	0.34	0.33	0.35	0.35	0.36	0.41	0.46	0.51	0.33	0.33	0.40	0.35	0.39	0.60

VOC CAT 19

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
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CH 36	0.23	0.31	0.41	0.52	0.62	0.82	1.00	1.13	0.37	0.53	0.90	0.44	0.66	1.34
TX 45	1.97	2.80	3.82	4.73	5.66	7.61	9.23	10.49	3.43	4.83	8.42	4.07	6.10	12.49

VOC CAT 20

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
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GA 11	0.08	0.10	0.13	0.17	0.21	0.31	0.45	0.67	0.12	0.18	0.46	0.14	0.23	0.93
NY 33	0.38	0.42	0.62	0.78	0.99	1.53	2.28	3.35	0.51	0.78	2.20	0.65	1.11	4.67
OK 37	0.03	0.03	0.04	0.05	0.06	0.09	0.13	0.19	0.04	0.05	0.14	0.04	0.07	0.26
TX 45	1.32	1.41	1.93	2.38	2.86	4.09	5.90	8.69	1.75	2.41	6.02	2.02	3.20	12.11
WA 49	0.11	0.11	0.16	0.19	0.22	0.29	0.42	0.62	0.14	0.18	0.42	0.16	0.24	0.87

VOC CAT 21

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
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TX 45	313.86	339.10	437.90	516.90	589.28	745.20	854.52	878.91	398.48	508.53	664.70	462.13	631.30	1032.23

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

AHL/ARAM/INDVOC 11/22/85

VOC CAT 21

	REFERENCE CASE							LOW CASE			HIGH CASE		
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000

VOC CAT 22

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
TX 45	262.60	283.71	366.33	432.48	493.03	623.49	714.95	735.36	333.40	425.52	556.13	386.65	528.19	863.64

VOC CAT 23

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
CA 5	0.45	0.54	0.71	0.86	1.02	1.34	1.53	1.69	0.64	0.83	1.31	0.75	1.10	2.00
DE 8	0.75	0.92	1.13	1.43	1.63	2.20	2.59	2.78	1.07	1.45	2.16	1.25	1.80	3.28
IL 14	3.31	4.18	5.33	6.60	7.76	10.16	11.97	12.87	4.90	6.69	10.00	5.71	8.34	15.19
IA 16	0.04	0.05	0.07	0.08	0.09	0.11	0.13	0.14	0.06	0.05	0.11	0.07	0.10	0.16
KS 17	0.05	0.06	0.07	0.09	0.10	0.13	0.15	0.17	0.07	0.09	0.14	0.08	0.11	0.20
KY 18	5.67	6.22	8.63	10.86	13.12	18.19	21.44	23.03	7.82	11.22	17.69	9.15	14.09	27.19
LA 19	32.87	39.52	55.21	70.60	84.64	114.59	135.04	145.09	50.42	73.57	113.49	53.56	90.92	171.26
ND 21	47.90	50.16	61.16	71.64	85.12	114.47	134.90	144.94	55.71	73.31	112.34	64.87	91.44	171.03
HA 22	1.77	2.02	2.53	3.03	3.22	3.70	4.36	4.68	2.25	2.67	3.50	2.74	3.45	5.53
HS 25	0.54	0.67	0.95	1.20	1.45	1.98	2.33	2.50	0.87	1.25	1.95	1.01	1.55	2.96
NJ 31	0.67	0.84	1.12	1.34	1.59	2.17	2.56	2.75	1.01	1.35	2.03	1.19	1.71	3.24
NC 34	0.29	0.44	0.67	0.85	1.03	1.43	1.69	1.82	0.61	0.86	1.33	0.72	1.11	2.14
PA 39	1.92	2.55	3.49	3.74	4.47	6.30	7.43	7.93	3.19	3.24	6.02	3.70	4.81	9.42
TN 44	0.31	0.46	0.66	0.80	0.94	1.27	1.50	1.61	0.59	0.78	1.16	0.70	1.01	1.90
TX 45	226.02	278.58	369.39	444.14	513.62	657.30	774.57	832.25	335.90	442.51	648.90	391.85	551.73	982.35
VA 48	0.05	0.08	0.10	0.11	0.13	0.17	0.20	0.22	0.09	0.11	0.15	0.11	0.14	0.26
WA 49	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.01

VOC CAT 24

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
CA 5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
IL 14	0.10	0.14	0.19	0.24	0.29	0.37	0.45	0.50	0.17	0.25	0.40	0.20	0.31	0.59
IN 15	0.10	0.13	0.20	0.23	0.28	0.33	0.46	0.51	0.17	0.22	0.37	0.21	0.30	0.60
HJ 31	2.37	3.16	4.25	5.21	6.20	8.24	9.95	11.11	3.83	5.35	8.83	4.53	6.67	13.19
PA 39	0.73	1.00	1.37	1.69	2.02	2.71	3.28	3.66	1.24	1.74	2.92	1.45	2.18	4.34
TX 45	0.08	0.11	0.15	0.19	0.22	0.28	0.34	0.38	0.14	0.19	0.30	0.16	0.24	0.45

VOC CAT 25

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
TX 45	37.67	40.70	52.56	62.04	70.73	89.44	102.57	105.49	47.83	61.01	79.78	55.47	75.77	123.90

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAH/INDVOC 11/22/85

VOC CAT 26

	REFERENCE CASE								LOW CASE			HIGH CASE		
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
IL 16	0.20	0.22	0.27	0.33	0.38	0.49	0.56	0.58	0.25	0.33	0.43	0.29	0.41	0.68
KS 17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IN 25	0.03	0.10	0.14	0.19	0.24	0.33	0.43	0.45	0.13	0.19	0.31	0.15	0.26	0.52
NJ 31	0.56	0.70	0.93	1.11	1.30	1.71	1.97	2.02	0.82	1.07	1.46	0.98	1.39	2.33
NC 36	0.40	0.44	0.58	0.70	0.82	1.09	1.25	1.23	0.53	0.71	0.97	0.61	0.83	1.51
PA 39	1.53	1.65	2.15	2.51	2.94	3.94	4.51	4.65	1.95	2.54	3.50	2.26	3.15	5.46
TH 44	9.06	9.62	11.92	13.74	15.94	20.94	24.01	24.72	10.89	13.87	18.84	12.53	17.08	29.06
TX 45	211.70	226.58	292.05	344.46	391.23	493.85	566.25	583.04	265.85	338.17	440.12	308.04	419.84	685.27

VOC CAT 27

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
CA 5	0.53	0.78	1.05	1.32	1.64	2.23	2.73	3.08	0.95	1.41	2.48	1.12	1.76	3.67
CT 7	0.01	0.01	0.02	0.02	0.03	0.04	0.05	0.05	0.01	0.02	0.04	0.02	0.03	0.06
DE 8	0.13	0.20	0.26	0.31	0.38	0.51	0.63	0.71	0.23	0.33	0.57	0.27	0.41	0.84
IL 14	0.33	0.50	0.66	0.82	0.99	1.34	1.63	1.85	0.60	0.85	1.48	0.70	1.07	2.20
IN 15	0.01	0.02	0.03	0.04	0.05	0.07	0.08	0.09	0.03	0.04	0.07	0.04	0.05	0.11
IA 16	0.26	0.34	0.46	0.58	0.69	0.94	1.14	1.29	0.42	0.60	1.04	0.49	0.75	1.54
KY 18	0.51	0.79	1.03	1.29	1.55	2.10	2.56	2.90	0.97	1.33	2.28	1.11	1.68	3.45
LA 19	7338.2910435.9715171.1319748.9124366.6034035.66441535.2646958.53								13832.3721084.7237836.20			16247.6026249.8755062.89		
MD 26	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.00	0.01	0.01
NJ 31	0.65	0.96	1.28	1.56	1.90	2.63	3.21	3.63	1.17	1.63	2.91	1.38	2.04	4.32
MI 36	0.46	0.67	0.89	1.10	1.33	1.79	2.18	2.47	0.81	1.15	1.93	0.95	1.43	2.94
PA 39	0.80	1.20	1.63	1.93	2.43	3.40	4.15	4.69	1.43	2.08	3.76	1.74	2.61	5.53
SC 42	0.01	0.01	0.02	0.02	0.03	0.04	0.05	0.06	0.02	0.03	0.04	0.02	0.03	0.07
TN 44	0.41	0.60	0.77	0.92	1.11	1.49	1.82	2.06	0.71	0.96	1.67	0.83	1.19	2.45
TX 45	13495.0320044.3526963.7833001.9139278.9351857.2663285.7271543.01								24480.5033683.8657466.21			20877.5242314.1985114.25		
WA 49	1.50	2.92	4.29	5.57	6.74	9.18	11.20	12.66	3.98	5.89	10.44	4.60	7.26	15.07

VOC CAT 28

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
DE 8	0.02	0.04	0.05	0.08	0.11	0.17	0.21	0.23	0.05	0.09	0.19	0.07	0.12	0.28
GA 11	0.01	0.02	0.03	0.04	0.05	0.07	0.09	0.10	0.03	0.04	0.08	0.03	0.06	0.12
KS 17	0.00	0.01	0.01	0.01	0.01	0.02	0.03	0.03	0.01	0.01	0.02	0.01	0.02	0.03
KY 18	0.03	0.03	0.04	0.05	0.06	0.07	0.09	0.10	0.04	0.05	0.08	0.05	0.06	0.12
ME 20	0.23	0.25	0.31	0.37	0.40	0.42	0.52	0.59	0.27	0.33	0.46	0.33	0.43	0.70
NJ 31	0.02	0.03	0.05	0.06	0.07	0.10	0.12	0.14	0.04	0.06	0.11	0.05	0.08	0.16
PA 39	0.46	0.68	0.95	1.18	1.47	2.10	2.55	2.90	0.86	1.27	2.33	1.02	1.58	3.45
TX 45	23.17	33.86	46.82	58.65	70.74	95.42	116.43	131.63	42.59	60.89	105.88	50.14	76.21	156.53

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAN/INDVOC 11/22/85

VOC CAT 29

	REFERENCE CASE								LOW CASE			HIGH CASE		
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AR 4	1.46	1.36	2.04	2.69	3.35	4.84	5.55	5.71	1.23	2.95	4.42	2.15	3.59	6.71
CA 5	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01
CT 7	0.05	0.07	0.03	0.10	0.13	0.19	0.22	0.22	0.07	0.11	0.17	0.09	0.14	0.26
DE 8	0.03	0.03	0.03	0.04	0.05	0.06	0.07	0.07	0.03	0.04	0.05	0.03	0.05	0.03
GA 11	0.65	0.81	1.03	1.23	1.45	1.92	2.21	2.27	0.94	1.26	1.73	1.09	1.55	2.67
IL 14	0.30	0.33	0.42	0.50	0.53	0.75	0.86	0.83	0.33	0.50	0.66	0.44	0.62	1.04
KS 17	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.02	0.03	0.04	0.03	0.04	0.07
LA 19	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.01	0.02	0.02	0.01	0.02	0.04
ID 21	0.04	0.03	0.04	0.04	0.05	0.07	0.08	0.08	0.04	0.05	0.06	0.04	0.05	0.10
NS 25	0.03	0.10	0.15	0.19	0.24	0.38	0.44	0.45	0.13	0.19	0.31	0.15	0.26	0.53
NJ 31	0.40	0.42	0.54	0.64	0.74	0.98	1.13	1.16	0.50	0.64	0.83	0.57	0.79	1.36
PA 39	0.16	0.17	0.23	0.26	0.31	0.42	0.48	0.49	0.21	0.27	0.37	0.24	0.33	0.53
TX 45	645.42	693.35	895.65	1054.43	1200.03	1514.61	1736.77	1786.66	815.56	1035.35	1355.77	944.32	1285.55	2100.78

VOC CAT 30

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
CA 5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IL 14	1.55	1.93	2.52	3.10	3.65	4.77	5.66	6.13	2.29	3.14	4.80	2.63	3.92	7.25
LA 19	0.06	0.07	0.10	0.13	0.15	0.19	0.23	0.24	0.10	0.13	0.20	0.11	0.16	0.29
MA 22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA 39	0.80	0.98	1.33	1.59	1.89	2.57	3.05	3.30	1.21	1.63	2.59	1.41	2.03	3.91
TX 45	1.55	1.83	2.52	3.04	3.52	4.50	5.34	5.79	2.29	3.03	4.54	2.68	3.78	6.84

VOC CAT 31

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	1.58	1.94	2.50	2.92	3.20	3.95	4.76	5.36	2.27	2.76	4.31	2.59	3.46	6.38
CA 5	11.20	16.04	18.57	21.23	23.99	30.41	36.59	41.21	16.92	20.74	33.35	19.26	25.94	49.02
IL 14	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.02	0.03
KS 17	2.92	3.86	4.59	5.20	5.73	7.49	9.01	10.15	4.20	4.99	8.20	4.76	6.25	12.07
LA 19	84.70	117.35	146.33	172.80	193.98	251.71	302.89	341.10	133.81	163.68	277.07	151.72	209.75	405.73
OH 36	5.40	7.82	8.84	9.98	10.97	13.69	16.43	18.56	8.06	9.49	15.03	9.17	11.87	22.07
OK 37	2.06	3.06	3.22	3.49	3.80	4.69	5.65	6.36	3.10	3.43	5.43	3.34	4.10	7.57
TX 45	55.56	81.12	93.62	104.00	112.80	138.95	167.20	183.30	85.30	97.31	152.59	97.07	121.96	223.98
WV 50	53.00	72.79	86.62	98.88	109.90	133.35	166.49	187.49	78.63	94.31	150.39	89.82	118.83	223.02

VOC CAT 32

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AZ 3	0.51	0.77	0.99	1.13	1.32	1.53	1.84	2.06	0.91	1.10	1.65	1.04	1.42	2.45
AR 4	0.09	0.12	0.16	0.19	0.21	0.24	0.28	0.32	0.14	0.18	0.26	0.17	0.23	0.38

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAH/INDVOC 11/22/85

VOC CAT 32

	REFERENCE CASE							LOW CASE			HIGH CASE			
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
CA 5	5.38	6.96	9.18	11.63	14.04	19.33	23.22	25.99	8.85	12.81	21.83	9.62	15.12	30.95
CO 6	6.63	10.07	14.67	18.91	24.01	35.10	42.17	47.20	12.67	19.97	37.35	15.37	25.85	56.20
CT 7	2.85	3.50	4.31	4.98	5.54	6.35	7.63	8.54	3.85	4.58	6.55	4.52	5.97	10.17
FL 10	3.03	3.73	4.93	6.51	8.17	12.60	15.13	16.93	4.86	7.54	14.32	5.17	8.80	20.16
GA 11	0.17	0.23	0.29	0.35	0.41	0.53	0.64	0.71	0.27	0.37	0.60	0.31	0.44	0.55
IL 14	2.11	2.11	2.51	2.74	3.00	3.58	4.30	4.81	2.22	2.53	3.72	2.63	3.23	5.73
IN 15	0.93	1.13	1.41	1.65	1.83	2.18	2.61	2.92	1.30	1.60	2.35	1.47	1.97	3.48
IA 16	0.05	0.06	0.07	0.09	0.11	0.14	0.17	0.19	0.07	0.09	0.15	0.08	0.11	0.23
KS 17	0.47	0.49	0.63	0.79	0.90	1.15	1.33	1.55	0.58	0.73	1.15	0.71	0.97	1.84
KY 18	25.35	33.03	53.23	66.04	77.92	103.29	130.03	145.60	43.34	65.76	109.53	55.77	83.91	173.38
LA 19	1.97	2.16	2.94	3.70	4.29	5.49	6.60	7.39	2.74	3.87	6.17	3.03	4.62	8.79
ME 20	1.51	1.59	1.97	2.12	2.24	2.24	2.69	3.01	1.81	1.95	2.36	2.03	2.41	3.58
MD 21	1.05	1.59	1.95	2.22	2.50	2.95	3.54	3.96	1.78	2.19	3.25	2.04	2.69	4.72
MA 22	5.74	5.52	6.50	7.20	7.69	8.66	10.40	11.64	5.72	6.24	8.60	6.81	8.28	13.86
HI 23	32.17	37.90	44.59	51.82	59.27	75.14	90.27	101.03	40.61	51.29	80.90	46.72	63.83	120.31
ND 26	0.45	0.57	0.70	0.80	0.90	1.10	1.32	1.48	0.67	0.85	1.26	0.73	0.97	1.76
NH 30	0.53	0.75	0.95	1.10	1.23	1.49	1.79	2.00	0.89	1.13	1.78	1.00	1.33	2.39
NJ 31	1.30	1.73	2.14	2.50	2.83	3.55	4.26	4.77	2.03	2.53	3.94	2.25	3.05	5.68
NY 33	0.79	0.91	1.13	1.31	1.43	1.93	2.31	2.59	1.04	1.30	2.10	1.13	1.59	3.08
NC 34	19.57	23.89	30.21	36.00	40.89	50.83	61.06	63.35	28.34	36.48	56.26	31.65	44.03	81.39
OH 36	23.20	29.95	34.09	35.51	39.99	48.17	57.86	64.77	29.35	32.53	48.46	35.72	43.07	77.12
OK 37	0.33	0.44	0.53	0.63	0.77	1.17	1.41	1.53	0.51	0.73	1.36	0.55	0.83	1.23
OR 38	9.49	10.94	13.55	16.04	17.96	21.51	25.84	28.92	13.03	16.34	24.35	14.20	19.35	34.44
PA 39	1.20	1.40	1.76	2.07	2.38	3.04	3.65	4.09	1.66	2.13	3.41	1.85	2.56	4.87
RI 41	0.10	0.11	0.14	0.16	0.17	0.17	0.21	0.23	0.12	0.14	0.18	0.15	0.18	0.28
SC 42	6.39	7.90	10.26	12.20	14.10	18.03	21.72	24.32	9.60	12.56	20.02	10.75	15.19	28.95
TN 44	0.99	1.41	1.79	2.03	2.42	3.22	3.87	4.33	1.63	2.11	3.56	1.87	2.61	5.16
TX 45	13.65	16.84	19.63	22.99	25.61	31.02	37.26	41.71	18.97	23.33	35.06	20.57	27.53	49.67
VT 47	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.01
VA 48	11.76	13.95	17.21	20.11	23.25	29.89	35.90	40.18	15.03	20.64	33.22	18.03	25.04	47.85
WA 49	0.05	0.07	0.09	0.12	0.13	0.16	0.20	0.22	0.09	0.12	0.19	0.10	0.14	0.26
HI 51	6.91	7.95	9.43	10.14	11.58	15.17	18.23	20.40	8.32	9.67	15.55	9.88	12.47	24.30

VOC CAT 33

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	428.91	385.76	545.53	672.28	767.24	962.39	1111.18	1164.75	498.65	663.35	879.78	574.10	821.58	1372.82
AZ 3	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.05	0.03	0.03	0.04	0.03	0.04	0.06
AR 4	10.22	9.69	14.00	17.82	21.49	29.98	34.62	36.29	12.78	18.61	27.57	14.73	23.02	42.77
CA 5	8.29	9.06	11.76	14.07	16.53	21.72	25.03	26.29	10.70	14.05	19.26	12.38	17.70	30.93
CO 6	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.00	0.01	0.01
CT 7	2.33	3.21	4.03	4.94	6.15	8.74	10.09	10.58	3.57	5.16	7.89	4.24	6.59	12.47
DE 8	303.38	319.70	393.94	462.57	531.43	675.97	780.51	818.13	359.57	459.44	617.84	414.57	569.08	964.27
GA 11	3.79	4.70	5.91	7.00	8.19	10.70	12.35	12.95	5.42	7.11	9.88	6.22	8.76	15.26
IL 14	34.00	36.89	45.50	54.15	62.04	78.81	91.00	95.39	41.55	53.66	72.20	47.88	66.43	112.42

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAH/INDVOC 11/22/85

VOC CAT 33

	REFERENCE CASE							LOHI CASE			HIGH CASE			
	1980	1985	1990	1995	2000	2010	2020	1990	2000	2030	1990	2000	2030	
IN 15	9.50	10.89	13.94	16.90	19.45	24.78	28.62	30.00	12.77	16.83	22.81	14.67	20.82	35.35
IA 16	0.05	0.05	0.07	0.03	0.10	0.13	0.15	0.15	0.07	0.09	0.12	0.03	0.11	0.18
KS 17	0.31	0.30	0.39	0.46	0.53	0.70	0.81	0.84	0.36	0.46	0.64	0.41	0.57	1.00
KY 18	45.54	43.33	57.51	70.45	82.99	111.87	129.17	135.40	52.37	71.24	101.29	60.52	85.87	159.53
LA 19	80.99	83.47	110.84	135.26	157.97	206.31	233.21	249.69	102.64	139.68	191.83	116.65	169.15	294.30
ND 21	6.74	7.94	9.44	10.42	11.59	14.38	16.60	17.40	8.57	9.83	13.24	9.94	12.41	20.51
MA 22	0.42	0.43	0.51	0.59	0.60	0.67	0.77	0.81	0.44	0.50	0.59	0.53	0.64	0.95
MI 24	1.78	2.03	2.52	2.94	3.39	4.44	5.13	5.33	2.31	2.95	4.11	2.66	3.63	6.34
NJ 26	49.47	50.89	65.30	74.89	84.68	105.70	123.20	129.14	58.27	70.75	93.73	68.72	90.63	152.20
NJ 31	110.91	114.92	145.03	166.01	191.40	249.47	283.05	301.93	133.35	166.18	229.13	152.63	204.98	355.87
NY 33	0.33	0.37	0.49	0.59	0.67	0.87	1.01	1.06	0.42	0.53	0.74	0.51	0.72	1.24
NC 34	1071.77	1187.19	1522.55	1820.93	2132.06	2728.20	3219.37	3374.56	1393.83	1852.76	2569.56	1602.18	2283.07	3977.32
OH 36	27.24	28.30	34.66	40.70	46.24	57.80	66.74	69.96	31.62	39.76	52.44	36.48	49.52	82.45
OK 37	1.43	1.55	1.80	2.06	2.33	2.92	3.37	3.53	1.74	2.11	2.83	1.89	2.49	4.16
OR 38	1.63	1.64	1.65	1.65	1.71	2.03	2.35	2.46	1.54	1.51	1.92	1.73	1.83	2.90
PA 39	79.47	77.34	96.05	110.65	129.57	167.01	192.83	202.13	90.77	114.34	155.75	101.92	138.75	238.24
RI 41	7.86	9.23	9.33	9.48	9.27	7.23	8.35	8.75	8.17	7.84	6.64	9.82	9.93	10.32
SC 42	73.21	81.79	104.26	125.39	146.57	191.16	220.72	231.36	95.92	127.17	175.74	110.35	155.95	272.69
TH 44	633.59	671.41	820.12	937.71	1078.37	1383.08	1614.26	1692.06	751.75	939.86	1297.46	853.01	1154.71	1994.23
TX 45	4709.31	5033.31	6391.01	7476.99	8432.9710400	0012112.3512896.31			5839.08	7290.49	9645.14	6725.37	9030.1114963.84	
UT 46	0.25	0.24	0.30	0.36	0.45	0.62	0.71	0.75	0.23	0.33	0.55	0.32	0.48	0.88
VA 48	82.21	86.62	103.80	119.22	133.03	179.27	205.99	216.97	95.11	119.55	164.56	109.23	147.80	255.73
WA 49	97.70	135.77	162.59	235.05	269.43	315.92	399.41	418.66	176.68	237.60	326.47	199.52	283.51	493.44
WV 50	46.10	46.45	60.82	73.17	84.69	103.15	124.87	130.89	55.40	72.90	98.49	64.01	90.69	154.26
WI 51	0.83	1.04	1.39	1.58	1.80	2.40	2.77	2.91	1.22	1.47	2.04	1.46	1.93	3.43
WY 52	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02

VOC CAT 34

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
CO 6	0.02	0.02	0.03	0.04	0.04	0.06	0.07	0.08	0.03	0.04	0.07	0.03	0.05	0.10
CT 7	4.17	6.07	7.65	9.54	12.09	17.43	21.33	25.09	7.14	10.71	20.72	8.07	12.76	29.58
DE 8	1.00	1.11	1.33	1.55	1.92	2.49	3.05	3.57	1.32	1.76	2.99	1.45	2.03	4.21
HI 15	62.40	74.57	95.81	119.09	139.53	180.17	220.45	258.69	92.33	128.35	219.49	100.85	147.33	304.53
IU 31	1.52	1.70	2.16	2.5%	2.98	3.97	4.86	5.70	2.07	2.72	4.79	2.27	3.16	6.72
NY 33	0.11	0.11	0.14	0.17	0.19	0.26	0.31	0.37	0.14	0.18	0.31	0.15	0.20	0.43
CR 33	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.02
PA 39	0.03	0.04	0.05	0.05	0.06	0.09	0.10	0.12	0.04	0.06	0.10	0.05	0.07	0.14
TX 45	11.00	12.44	15.86	18.06	21.64	27.39	33.51	39.32	15.23	19.75	33.03	16.70	22.84	46.36
VA 48	0.29	0.32	0.39	0.45	0.53	0.69	0.85	0.99	0.37	0.48	0.83	0.41	0.56	1.17

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10⁶*3 TONS)

AHL/ARAH/INDVOC 11/22/85

VOC CAT 35

	REFERENCE CASE								LOI CASE			HIGH CASE		
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AZ 3	0.16	0.16	0.18	0.20	0.23	0.29	0.33	0.35	0.17	0.21	0.27	0.19	0.24	0.43
CA 5	0.01	0.01	0.02	0.02	0.02	0.03	0.04	0.04	0.01	0.02	0.03	0.02	0.03	0.05
DE 8	7.15	6.71	8.02	9.23	10.69	13.55	15.65	16.82	7.34	9.17	11.97	8.38	11.47	20.31
HI 15	0.02	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.02	0.03	0.04	0.02	0.03	0.06
IU 31	0.63	0.64	0.78	0.69	1.03	1.35	1.56	1.67	0.72	0.89	1.20	0.82	1.11	2.02
NC 34	0.51	0.57	0.77	0.93	1.25	1.93	2.23	2.40	0.70	1.00	1.56	0.81	1.34	2.90
OH 35	2.80	2.36	2.61	2.82	3.09	3.58	4.14	4.45	2.36	2.51	2.83	2.72	3.31	5.37
SC 42	5.47	5.43	6.73	7.92	9.26	12.03	13.89	14.93	6.19	7.99	10.71	7.03	9.94	18.03
TH 44	4.69	4.59	5.28	5.49	6.02	7.13	8.24	8.85	4.78	4.99	5.93	5.51	6.47	10.69
TX 45	101.22	96.29	118.70	136.81	154.63	191.83	221.52	233.12	103.74	132.69	170.47	123.93	166.00	287.46
VT 47	0.01	0.02	0.02	0.03	0.04	0.06	0.07	0.07	0.02	0.03	0.05	0.02	0.04	0.09
VA 48	8.92	8.40	9.72	10.93	12.59	16.06	18.54	19.93	8.92	10.80	14.20	10.14	13.52	24.06

VOC CAT 36

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
IN 15	0.20	0.19	0.26	0.33	0.39	0.57	0.64	0.67	0.24	0.31	0.41	0.27	0.42	0.81
ID 21	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.04
SC 42	0.88	0.62	0.72	0.72	0.72	0.74	0.84	0.87	0.64	0.53	0.52	0.74	0.77	1.05
TH 44	14.79	11.98	14.25	15.77	17.26	20.94	23.52	24.38	13.07	14.87	16.55	14.73	18.51	29.53
VA 48	320.69	257.61	299.30	330.70	332.67	435.86	459.48	507.31	273.55	309.60	339.53	309.31	359.10	615.67

VOC CAT 37

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	0.36	0.31	0.43	0.52	0.59	0.73	0.85	0.90	0.40	0.51	0.68	0.46	0.63	1.06
AZ 3	0.16	0.17	0.19	0.21	0.24	0.29	0.34	0.35	0.18	0.22	0.29	0.20	0.25	0.43
CA 5	3.20	3.29	4.03	4.84	5.61	7.11	8.26	8.74	3.75	4.89	6.64	4.29	6.00	10.33
DE 8	0.81	0.83	1.00	1.15	1.31	1.64	1.90	2.01	0.92	1.14	1.52	1.05	1.40	2.38
GA 11	0.12	0.15	0.18	0.21	0.25	0.32	0.37	0.39	0.17	0.21	0.30	0.19	0.26	0.46
ID 13	0.24	0.35	0.42	0.43	0.53	0.66	0.76	0.81	0.40	0.47	0.63	0.44	0.57	0.95
IL 14	1.14	1.22	1.47	1.72	1.95	2.45	2.85	3.01	1.35	1.70	2.28	1.55	2.09	3.55
IA 16	9.72	8.71	11.04	12.95	14.55	18.22	21.15	22.37	10.12	12.64	16.59	11.59	15.55	26.46
KS 17	0.02	0.02	0.02	0.02	0.03	0.04	0.04	0.04	0.02	0.02	0.03	0.02	0.03	0.05
KY 18	0.25	0.23	0.30	0.36	0.42	0.56	0.65	0.69	0.27	0.36	0.51	0.32	0.45	0.81
LA 19	15.44	15.32	20.52	25.06	28.95	37.58	43.63	46.15	18.89	25.37	35.21	21.54	30.96	54.57
MI 20	0.14	0.15	0.18	0.21	0.24	0.31	0.36	0.38	0.17	0.21	0.29	0.19	0.25	0.45
HS 25	0.10	0.11	0.14	0.17	0.20	0.26	0.31	0.33	0.13	0.18	0.25	0.15	0.22	0.33
HE 23	0.49	0.50	0.63	0.71	0.81	1.06	1.23	1.30	0.57	0.71	0.99	0.66	0.87	1.54
HJ 31	1.62	1.67	2.06	2.34	2.67	3.45	4.00	4.23	1.89	2.32	3.22	2.16	2.85	5.01
HC 34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TH 44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TX 45	19.13	19.99	24.73	28.38	31.62	38.79	45.04	47.65	22.69	27.48	36.24	25.97	33.82	55.34
VA 48	1.09	1.16	1.32	1.49	1.68	2.11	2.45	2.59	1.27	1.52	2.07	1.39	1.79	3.06

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAM/INOVOC 11/22/85

VOC CAT 37

	REFERENCE CASE								LOW CASE			HIGH CASE		
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
IA 49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01
IV 50	0.17	0.17	0.21	0.25	0.29	0.36	0.42	0.44	0.19	0.25	0.33	0.22	0.30	0.52

VOC CAT 38

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
CA 5	0.13	0.13	0.15	0.19	0.22	0.31	0.35	0.37	0.15	0.19	0.29	0.17	0.23	0.42
II 15	7.55	7.60	8.27	9.23	9.97	11.68	13.13	14.02	8.19	9.44	11.93	8.44	10.38	15.87
IA 16	1.23	1.18	1.35	1.52	1.65	1.72	2.15	2.30	1.33	1.54	1.94	1.38	1.71	2.60
KY 13	16.41	16.76	19.01	21.00	22.80	25.51	29.80	31.81	18.63	21.27	26.76	19.41	23.73	36.01
MD 21	0.20	0.20	0.22	0.23	0.25	0.29	0.32	0.34	0.21	0.23	0.29	0.22	0.26	0.39
MI 24	0.13	0.14	0.16	0.18	0.20	0.23	0.26	0.27	0.16	0.18	0.23	0.16	0.20	0.31
NC 34	0.09	0.10	0.12	0.14	0.16	0.18	0.21	0.22	0.12	0.14	0.19	0.13	0.16	0.25
TX 45	0.03	0.03	0.04	0.04	0.04	0.05	0.06	0.06	0.03	0.04	0.05	0.04	0.05	0.07
VA 48	0.09	0.10	0.12	0.14	0.15	0.18	0.20	0.21	0.12	0.14	0.13	0.12	0.16	0.24
WA 49	0.23	0.26	0.32	0.33	0.42	0.49	0.55	0.59	0.32	0.39	0.50	0.33	0.44	0.66
HI 51	0.03	0.09	0.10	0.11	0.12	0.14	0.16	0.17	0.10	0.11	0.15	0.10	0.13	0.19

VOC CAT 39

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AR 4	3.66	4.53	5.80	6.74	7.30	8.56	9.66	10.57	5.62	6.76	8.80	5.86	7.61	12.07
II 15	1313.23	1546.99	1677.13	1816.46	1917.71	2195.85	2477.80	2713.53	1647.32	1800.05	2290.67	1696.17	1999.00	3095.47
MS 25	1.08	1.46	1.76	1.97	2.12	2.45	2.76	3.02	1.71	1.96	2.51	1.78	2.21	3.45

VOC CAT 40

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
CA 5	0.13	0.17	0.23	0.28	0.33	0.44	0.53	0.59	0.21	0.28	0.45	0.24	0.36	0.69
CO 6	0.01	0.01	0.02	0.02	0.03	0.04	0.04	0.05	0.02	0.02	0.04	0.02	0.03	0.06
CT 7	0.75	1.03	1.27	1.50	1.64	1.78	2.12	2.37	1.13	1.35	1.31	1.34	1.75	2.79
DE 8	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
IE 20	0.97	1.64	2.26	2.85	3.61	5.31	6.34	7.05	2.00	2.99	5.39	2.33	3.87	8.32
IA 22	0.05	0.06	0.08	0.09	0.10	0.13	0.15	0.17	0.07	0.08	0.13	0.08	0.11	0.20
IL 35	0.07	0.09	0.12	0.14	0.15	0.19	0.23	0.26	0.11	0.13	0.20	0.12	0.16	0.30
OK 37	0.12	0.17	0.23	0.28	0.31	0.40	0.43	0.53	0.21	0.27	0.42	0.24	0.33	0.63
OR 38	3.30	3.99	4.91	5.95	6.73	8.14	9.71	10.81	4.65	6.12	9.19	5.15	7.21	12.74
PA 39	2.04	2.77	3.61	3.93	4.59	6.19	7.33	8.21	3.39	4.06	6.65	3.78	4.92	9.69
SC 42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VA 43	0.09	0.14	0.18	0.20	0.23	0.29	0.35	0.39	0.16	0.20	0.30	0.19	0.25	0.45
HI 51	0.19	0.29	0.39	0.51	0.55	0.68	0.81	0.90	0.35	0.47	0.70	0.40	0.59	1.06

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAM/INDVOC 11/22/85

VOC CAT 41

REFERENCE CASE										LOW CASE			HIGH CASE		
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030	
AL 1	0.51	0.71	0.77	0.87	0.95	1.18	1.38	1.55	0.70	0.81	1.25	0.79	1.02	1.82	
CA 5	0.02	0.03	0.03	0.03	0.03	0.04	0.05	0.05	0.02	0.03	0.04	0.03	0.04	0.06	
CT 7	0.62	0.81	0.81	0.87	0.89	0.89	1.04	1.17	0.72	0.73	0.93	0.84	0.96	1.37	
GA 11	0.62	0.76	0.71	0.78	0.82	0.93	1.03	1.22	0.69	0.77	1.12	0.74	0.89	1.43	
IL 14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
LA 19	4.24	4.86	5.39	6.40	7.00	8.28	9.67	10.86	4.97	6.27	9.50	5.57	7.55	12.75	
ID 21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
IN 24	0.04	0.05	0.06	0.07	0.07	0.09	0.11	0.12	0.05	0.06	0.10	0.06	0.08	0.14	
OK 37	3.70	5.03	5.49	6.00	6.30	7.40	8.64	9.70	4.97	5.40	7.92	5.67	6.79	11.39	
PA 39	3.75	4.89	5.17	5.15	5.62	6.92	8.07	9.07	4.78	4.96	7.64	5.34	6.06	10.64	
TN 44	0.17	0.25	0.28	0.32	0.34	0.40	0.47	0.53	0.25	0.29	0.42	0.29	0.37	0.62	
TX 45	290.39	397.75	453.94	503.59	543.20	655.67	765.18	859.26	411.02	455.79	699.75	469.01	585.80	1008.87	
VA 48	0.30	0.46	0.47	0.49	0.52	0.60	0.70	0.79	0.43	0.44	0.63	0.49	0.56	0.93	
WA 49	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.02	
HI 51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

VOC CAT 42

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	0.09	0.11	0.13	0.16	0.18	0.25	0.30	0.34	0.12	0.15	0.25	0.14	0.19	0.40
AZ 3	0.43	0.47	0.51	0.58	0.64	0.81	0.97	1.11	0.49	0.53	0.95	0.53	0.69	1.32
CA 5	0.52	0.60	0.75	0.83	1.01	1.37	1.63	1.87	0.67	0.84	1.41	0.76	1.09	2.23
CO 6	0.44	0.39	0.50	0.53	0.67	0.89	1.07	1.22	0.44	0.55	0.92	0.52	0.72	1.45
CT 7	0.11	0.13	0.15	0.17	0.19	0.24	0.28	0.33	0.13	0.16	0.26	0.16	0.21	0.39
DE 8	3.17	3.37	3.83	4.52	5.09	6.43	7.75	8.28	3.51	4.40	7.16	4.05	5.48	10.56
IL 14	1.01	1.15	1.35	1.57	1.76	2.27	2.71	3.11	1.22	1.51	2.47	1.41	1.89	3.69
IN 15	2.57	2.94	3.52	4.26	4.81	6.11	7.31	8.38	3.20	4.19	6.84	3.67	5.18	9.56
IA 16	12.63	16.34	19.20	23.32	24.87	28.86	34.51	39.58	17.55	21.02	31.92	20.66	26.77	47.03
KY 18	32.65	31.43	38.98	47.37	54.67	73.66	83.07	100.99	35.20	46.82	80.61	40.67	53.85	120.01
LA 19	14.45	14.32	19.03	23.50	26.92	35.44	42.37	48.59	17.30	23.45	39.52	19.85	28.95	57.74
HS 25	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.01
HO 26	0.48	0.53	0.57	0.65	0.72	0.90	1.03	1.24	0.55	0.65	1.06	0.60	0.78	1.47
HJ 31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01
OII 36	37.89	40.70	47.48	55.91	62.63	79.35	94.88	108.80	43.01	54.16	87.98	49.54	67.43	129.28
PA 39	0.80	0.74	0.82	0.80	0.83	0.95	1.14	1.31	0.73	0.69	0.98	0.85	0.90	1.55
SC 42	1.31	1.51	1.93	2.29	2.65	3.51	4.20	4.82	1.68	2.22	3.86	2.02	2.85	5.73
TH 44	13.69	15.74	18.81	21.66	24.42	31.82	38.05	43.64	16.97	20.82	34.34	19.63	26.29	51.85
TX 45	2215.81	2390.41	2839.33	3296.46	3643.45	4533.32	5420.53	6216.00	2570.56	3145.22	5033.97	2962.31	3922.42	7386.17
VA 48	0.78	0.98	1.17	1.29	1.43	1.79	2.15	2.46	1.05	1.19	1.83	1.22	1.53	2.92

VOC CAT 43

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	0.64	0.59	0.86	1.07	1.23	1.54	1.82	1.93	0.79	1.07	1.56	0.90	1.31	2.33

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10³*3 TONS)

ANL/ARAH/INDVOC 11/22/85

VOC CAT 43

	REFERENCE CASE							LOW CASE			HIGH CASE			
	1980	1985	1990	1995	2000	2010	2020	1990	2000	2030	1990	2000	2030	
AZ 3	0.00	0.00	0.60	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.01	
CA 5	0.87	1.00	1.22	1.43	1.61	1.96	2.32	2.51	1.16	1.43	2.00	1.23	1.72	2.96
CO 6	0.41	0.61	0.73	0.95	1.11	1.40	1.66	1.80	0.71	0.97	1.41	0.81	1.19	2.12
CT 7	0.03	0.04	0.05	0.05	0.06	0.11	0.13	0.14	0.05	0.07	0.11	0.05	0.08	0.17
DE 8	0.19	0.21	0.25	0.31	0.35	0.46	0.55	0.59	0.24	0.32	0.47	0.28	0.39	0.70
FL 10	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.00	0.01	0.01
GA 11	0.09	0.12	0.15	0.18	0.22	0.23	0.33	0.36	0.14	0.19	0.29	0.16	0.23	0.43
IL 14	5.39	6.09	7.63	9.28	10.63	13.63	16.03	17.45	7.06	9.36	13.77	8.05	11.43	20.54
IN 15	2.83	3.30	4.31	5.34	6.17	7.85	9.27	10.06	3.93	5.49	8.03	4.52	6.61	11.84
IA 16	0.33	0.32	0.42	0.50	0.53	0.75	0.88	0.96	0.33	0.51	0.75	0.44	0.62	1.13
KS 17	0.00	0.00	0.03	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.01
KY 18	3.04	2.99	4.05	5.02	5.94	8.03	9.47	10.28	3.71	5.16	8.01	4.24	6.35	12.10
LA 19	9.43	9.95	13.93	17.54	20.57	27.16	32.04	34.76	12.87	18.17	27.60	14.61	22.02	40.92
ND 21	13.97	13.05	15.57	18.01	20.95	27.49	32.43	35.18	14.36	18.35	27.05	16.33	22.42	41.42
HA 22	0.54	0.57	0.69	0.81	0.83	0.93	1.10	1.19	0.61	0.70	0.90	0.72	0.89	1.40
HI 23	2.23	2.28	2.94	3.47	3.96	5.01	5.92	6.42	2.70	3.47	5.05	3.03	4.24	7.56
MI 24	0.17	0.20	0.26	0.30	0.35	0.46	0.55	0.59	0.24	0.31	0.47	0.27	0.38	0.70
MS 25	0.79	0.26	1.21	1.51	1.77	2.36	2.79	3.02	1.11	1.55	2.39	1.27	1.90	3.56
MO 26	0.17	0.18	0.24	0.29	0.33	0.43	0.50	0.55	0.22	0.29	0.43	0.25	0.35	0.64
MT 27	0.13	0.15	0.17	0.20	0.23	0.29	0.34	0.37	0.17	0.21	0.31	0.13	0.24	0.43
HJ 31	10.78	11.78	15.20	17.85	20.67	27.17	32.05	34.77	14.00	18.13	27.51	15.94	22.12	40.94
NY 33	0.06	0.06	0.03	0.09	0.10	0.14	0.16	0.17	0.07	0.09	0.14	0.08	0.11	0.20
NC 34	0.86	0.93	1.29	1.55	1.25	2.40	2.83	3.07	1.18	1.61	2.44	1.35	1.96	3.62
OH 36	2.50	2.80	3.50	4.14	4.73	5.99	7.07	7.67	3.19	4.10	5.28	3.68	5.06	9.03
OR 35	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.02	0.02	0.03	0.02	0.03	0.04
PA 39	1.92	2.14	2.79	3.29	3.83	5.03	5.99	6.50	2.57	3.36	5.13	2.93	4.10	7.65
SC 42	0.37	1.05	1.33	1.59	1.83	2.33	2.75	2.93	1.24	1.62	2.36	1.39	1.96	3.51
TH 44	89.12	97.48	121.57	140.84	162.53	211.42	249.44	270.59	112.29	143.42	215.20	127.50	173.94	318.60
TX 45	87.73	96.78	125.43	148.74	163.34	210.10	247.89	268.91	115.46	147.35	212.65	131.60	180.14	316.62
WI 51	2.16	2.50	3.51	4.33	5.05	6.56	7.74	8.39	3.23	4.44	6.67	3.68	5.40	9.88

VOC CAT 44

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	5.88	6.13	7.62	8.29	9.15	11.96	13.01	11.24	6.47	7.27	6.05	7.87	10.10	13.96
CA 5	1.59	1.82	2.25	2.41	2.55	3.04	3.31	2.85	1.92	2.04	1.54	2.32	2.83	3.55
IL 14	1.66	1.75	1.96	2.09	2.21	2.72	2.95	2.55	1.67	1.75	1.37	2.03	2.44	3.17
II 15	16.29	20.28	23.76	25.77	27.45	33.95	36.94	31.90	20.21	21.80	17.17	24.53	30.28	39.63
KY 13	1.01	1.37	1.64	1.81	1.95	2.42	2.63	2.27	1.40	1.54	1.22	1.69	2.15	2.82
III 23	5.29	6.34	6.69	7.02	7.40	9.04	9.84	8.50	5.74	5.94	4.64	6.91	8.17	10.55
OH 36	13.17	15.46	17.13	18.09	19.05	23.32	25.37	21.91	14.53	15.16	11.55	17.69	21.02	27.21
PA 39	12.27	12.54	14.87	15.23	16.24	20.31	22.10	19.08	12.63	12.97	10.37	15.36	17.92	23.71
TH 44	1.51	1.94	2.25	2.46	2.62	3.15	3.42	2.96	1.94	2.05	1.56	2.34	2.89	3.67
TX 45	4.17	4.62	5.71	6.43	6.93	8.84	9.62	8.31	4.87	5.51	4.42	5.90	7.70	10.32

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAM/INDVOC 11/22/85

VOC CAT 44

	REFERENCE CASE								LOW CASE			HIGH CASE		
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
VA 48	0.34	0.66	0.53	0.65	0.71	0.90	0.97	0.84	0.49	0.56	0.45	0.60	0.78	1.04
NV 50	9.33	9.38	11.15	11.95	12.87	15.87	17.27	14.91	9.41	10.19	8.00	11.52	14.20	13.52
HI 51	0.55	0.62	0.69	0.73	0.77	0.95	1.03	0.89	0.59	0.61	0.47	0.71	0.85	1.10
WV 52	0.17	0.16	0.18	0.19	0.21	0.23	0.30	0.26	0.16	0.19	0.16	0.13	0.23	0.32

VOC CAT 45

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
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VOC CAT 46

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	1.97	2.10	2.53	2.84	3.12	4.00	4.42	3.98	2.19	2.47	2.29	2.66	3.43	4.91
CA 5	0.17	0.20	0.25	0.27	0.23	0.33	0.35	0.33	0.21	0.22	0.19	0.25	0.31	0.40
IL 14	0.18	0.19	0.21	0.23	0.24	0.29	0.32	0.29	0.13	0.19	0.17	0.22	0.27	0.36
IN 15	0.05	0.10	0.12	0.13	0.14	0.17	0.19	0.17	0.10	0.11	0.10	0.12	0.15	0.21
KY 13	0.35	0.49	0.53	0.65	0.69	0.85	0.94	0.84	0.50	0.55	0.43	0.60	0.77	1.04
LA 19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HJ 23	0.80	0.97	1.01	1.06	1.10	1.32	1.46	1.31	0.26	0.87	0.75	1.04	1.22	1.62
HJ 31	0.15	0.20	0.24	0.23	0.32	0.42	0.47	0.42	0.20	0.26	0.25	0.25	0.35	0.52
NY 33	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OH 36	1.35	1.62	1.73	1.90	1.98	2.39	2.64	2.38	1.51	1.53	1.37	1.83	2.19	2.93
PA 39	6.92	7.53	8.77	9.20	9.80	12.17	13.46	12.11	7.54	7.92	7.13	9.04	10.81	14.93
TH 44	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
TX 45	0.63	0.72	0.87	0.93	1.05	1.32	1.46	1.31	0.74	0.84	0.75	0.90	1.17	1.62
UT 46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NV 50	0.06	0.05	0.07	0.03	0.09	0.11	0.12	0.10	0.06	0.07	0.05	0.08	0.10	0.13
HI 51	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.03

VOC CAT 47

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	3.22	2.83	3.65	4.06	4.58	6.00	7.16	8.03	3.17	3.67	5.56	3.79	5.00	9.83
AZ 3	0.02	0.02	0.02	0.03	0.03	0.04	0.05	0.06	0.02	0.02	0.04	0.02	0.03	0.07
AR 4	6.79	9.18	13.06	15.71	17.76	22.96	27.37	30.71	11.03	14.74	22.39	13.55	19.38	37.53
CA 5	6.06	5.94	7.49	8.21	8.95	10.66	12.71	14.26	6.54	7.19	9.93	7.77	9.77	17.45
CO 6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CT 7	0.05	0.07	0.08	0.09	0.10	0.13	0.15	0.17	0.07	0.08	0.12	0.09	0.11	0.21
GA 11	1.41	2.43	2.78	3.02	3.37	4.05	4.83	5.42	2.50	2.86	4.21	2.69	3.68	6.64
IL 14	3.56	3.21	3.63	3.99	4.32	5.33	6.35	7.12	3.20	3.46	4.93	3.82	4.72	8.72
IN 15	7.03	7.50	8.53	9.94	10.33	13.43	16.01	17.96	7.81	8.67	12.43	9.32	11.02	21.98
IA 16	0.12	0.14	0.17	0.19	0.20	0.25	0.29	0.33	0.15	0.16	0.23	0.18	0.22	0.40
KY 13	2.45	2.56	2.92	3.04	3.36	4.18	4.93	5.59	2.51	2.72	3.96	3.03	3.67	6.84

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10³*3 TONS)

ANL/ARAN/INDVOC 11/22/85

VOC CAT 47

	REFERENCE CASE							LOW CASE			HIGH CASE			
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
LA 19	6.03	6.70	8.35	10.03	11.43	14.92	17.79	19.96	7.71	10.18	15.74	8.63	12.47	24.42
ME 20	0.01	0.01	0.01	0.02	0.02	0.03	0.04	0.04	0.01	0.02	0.03	0.01	0.02	0.05
ID 21	0.21	0.20	0.22	0.24	0.26	0.32	0.38	0.43	0.20	0.22	0.33	0.23	0.28	0.52
HI 23	1.48	1.54	1.64	1.73	1.83	2.27	2.71	3.04	1.42	1.43	2.09	1.70	2.03	3.72
MS 25	0.57	0.79	0.93	1.10	1.19	1.54	1.72	1.93	0.86	0.95	1.31	1.02	1.30	2.35
ND 26	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02
NE 23	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.01
NJ 31	4.42	5.11	5.37	6.59	7.37	9.53	11.42	12.81	5.39	6.50	10.04	6.09	8.04	15.63
NY 33	0.06	0.06	0.05	0.05	0.07	0.10	0.12	0.13	0.04	0.05	0.10	0.06	0.03	0.16
NC 34	0.70	1.05	1.23	1.43	1.61	2.02	2.41	2.70	1.13	1.33	1.96	1.33	1.76	3.30
OH 35	1.64	1.67	1.89	2.03	2.18	2.63	3.19	3.58	1.63	1.75	2.49	1.96	2.38	4.38
OK 37	1.13	1.63	1.66	1.63	1.76	2.05	2.44	2.74	1.50	1.52	2.14	1.72	1.92	3.36
OR 38	0.23	0.25	0.33	0.39	0.43	0.54	0.65	0.73	0.31	0.37	0.55	0.35	0.47	0.89
PA 39	1.14	1.02	1.24	1.29	1.41	1.77	2.11	2.37	1.07	1.14	1.66	1.28	1.54	2.90
TH 44	0.69	0.76	0.91	1.01	1.10	1.32	1.58	1.77	0.80	0.87	1.21	0.94	1.20	2.17
TX 45	1.11	1.24	1.50	1.72	1.92	2.45	2.92	3.28	1.35	1.61	2.40	1.56	2.09	4.01
UT 46	0.02	0.02	0.03	0.03	0.01	0.06	0.07	0.08	0.02	0.03	0.05	0.03	0.04	0.09
VA 43	1.16	1.33	1.78	2.01	2.25	2.84	3.39	3.80	1.54	1.79	2.62	1.85	2.46	4.66
WA 49	4.79	4.64	5.24	5.64	6.05	7.45	8.83	9.95	4.82	5.22	7.51	5.44	6.60	12.19
WV 50	0.02	0.01	0.02	0.02	0.02	0.03	0.03	0.04	0.02	0.02	0.02	0.02	0.02	0.04
WI 51	0.25	0.24	0.27	0.29	0.32	0.39	0.46	0.52	0.23	0.25	0.36	0.23	0.34	0.63

VOC CAT 48

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
HI 51	0.09	0.10	0.13	0.16	0.18	0.23	0.29	0.32	0.11	0.14	0.22	0.14	0.20	0.39

VOC CAT 49

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
CA 5	0.28	0.28	0.35	0.40	0.44	0.52	0.60	0.65	0.32	0.37	0.52	0.36	0.47	0.76
CO 6	0.13	0.17	0.20	0.23	0.26	0.32	0.37	0.40	0.18	0.23	0.34	0.20	0.28	0.46
CT 7	0.07	0.06	0.07	0.08	0.03	0.10	0.11	0.12	0.06	0.07	0.09	0.07	0.09	0.14
DE 8	0.09	0.09	0.09	0.10	0.10	0.12	0.14	0.15	0.09	0.10	0.14	0.09	0.11	0.17
FL 10	0.20	0.22	0.27	0.31	0.34	0.41	0.47	0.51	0.24	0.29	0.40	0.28	0.36	0.59
GA 11	0.28	0.31	0.33	0.42	0.46	0.56	0.64	0.69	0.34	0.40	0.55	0.39	0.50	0.80
IL 14	0.34	0.74	0.87	0.94	1.00	1.17	1.35	1.45	0.76	0.82	1.11	0.89	1.07	1.69
IN 15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KY 18	0.07	0.07	0.03	0.09	0.10	0.13	0.14	0.16	0.08	0.10	0.14	0.05	0.11	0.18
ID 21	2.06	1.78	1.91	1.91	2.03	2.49	2.86	3.09	1.71	1.77	2.45	1.97	2.22	3.59
MA 22	0.15	0.15	0.18	0.21	0.22	0.26	0.29	0.32	0.16	0.18	0.25	0.19	0.23	0.37
HI 23	0.10	0.10	0.10	0.11	0.13	0.16	0.18	0.20	0.09	0.11	0.17	0.11	0.14	0.23
MS 25	0.80	0.95	1.13	1.43	1.71	2.16	2.83	3.05	1.09	1.50	2.47	1.17	1.84	3.55
ND 26	3.67	3.71	3.99	4.25	4.44	4.92	5.65	6.11	3.74	3.93	5.23	4.11	4.76	7.10

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAM/INDVOC 11/22/85

VOC CAT 49

	REFERENCE CASE							LOW CASE			HIGH CASE			
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
HJ 31	1.24	1.23	1.49	1.59	1.71	2.04	2.35	2.54	1.33	1.47	2.03	1.53	1.83	2.95
HJ 32	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01
HY 33	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.03	0.02	0.02	0.04
HC 34	0.11	0.11	0.14	0.16	0.17	0.21	0.26	0.26	0.12	0.15	0.21	0.14	0.13	0.30
OII 36	0.66	0.64	0.75	0.81	0.83	0.97	1.12	1.21	0.67	0.73	0.96	0.77	0.92	1.40
OK 37	0.44	0.41	0.46	0.51	0.53	1.16	1.33	1.44	0.53	0.81	1.17	0.66	0.99	1.67
OR 38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
SC 42	4.17	5.05	6.34	7.13	7.90	9.56	10.97	11.26	5.68	6.75	9.42	6.53	8.47	13.79
TH 44	0.40	0.33	0.44	0.48	0.52	0.53	0.67	0.72	0.40	0.44	0.56	0.45	0.55	0.84
TX 45	2.05	2.04	2.31	2.50	2.64	3.09	3.55	3.83	2.14	2.34	3.17	2.33	2.83	4.46
VA 43	0.05	0.06	0.05	0.07	0.07	0.08	0.10	0.10	0.06	0.06	0.09	0.07	0.08	0.12
HI 51	0.45	0.42	0.41	0.38	0.43	0.53	0.67	0.72	0.36	0.36	0.57	0.43	0.46	0.84

VOC CAT 50

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
VA 48	1.91	1.76	1.80	1.87	1.95	2.36	2.87	3.29	1.75	1.78	2.82	1.80	2.09	3.91

VOC CAT 51

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	4.80	4.77	5.00	5.09	4.94	4.70	5.72	6.72	4.93	4.57	5.47	5.06	5.24	8.01
AZ 3	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.06	0.04	0.04	0.09	0.04	0.04	0.07
CA 5	157.60	177.94	211.39	242.40	273.07	352.81	429.17	504.61	203.22	251.53	425.14	213.89	289.70	601.49
CT 7	0.35	0.37	0.37	0.33	0.39	0.38	0.46	0.54	0.36	0.34	0.42	0.38	0.41	0.65
ID 13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IL 14	41.05	36.17	35.05	35.95	34.49	32.55	39.60	46.56	35.05	31.37	37.14	36.28	36.49	55.50
IN 15	1.86	1.79	1.90	2.04	2.12	2.37	2.89	3.39	1.86	1.96	2.81	1.92	2.25	4.04
IA 16	0.21	0.19	0.20	0.20	0.21	0.21	0.26	0.30	0.19	0.19	0.25	0.20	0.22	0.36
KS 17	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02
LA 19	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
MD 21	9.00	8.07	7.67	7.38	7.00	6.54	7.95	9.35	7.56	6.43	7.55	7.76	7.42	11.14
MI 23	0.04	0.04	0.03	0.03	0.03	0.03	0.04	0.05	0.03	0.03	0.04	0.03	0.04	0.05
MI 24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MS 25	0.24	0.25	0.27	0.28	0.27	0.26	0.31	0.37	0.27	0.25	0.30	0.27	0.29	0.44
NE 26	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.02
NJ 31	1.66	1.67	1.63	1.64	1.55	1.47	1.79	2.10	1.60	1.42	1.63	1.65	1.65	2.50
NC 34	5.17	5.13	5.48	5.76	5.73	5.97	7.27	8.54	5.42	5.30	6.99	5.55	6.03	10.18
OII 35	12.60	11.61	11.25	11.21	10.77	10.27	12.49	14.69	11.19	10.05	11.93	11.33	11.43	17.51
OR 38	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
PA 39	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.01
SC 42	0.23	0.23	0.30	0.33	0.35	0.39	0.48	0.56	0.30	0.33	0.49	0.31	0.37	0.67
TH 44	0.05	0.05	0.05	0.05	0.05	0.04	0.05	0.06	0.05	0.04	0.05	0.05	0.05	0.07
TX 45	0.33	0.34	0.34	0.34	0.33	0.31	0.38	0.45	0.34	0.30	0.36	0.34	0.35	0.53

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAH/INDVOC 11/22/05

VOC CAT 51

	VA	45	REFERENCE CASE							LOW CASE			HIGH CASE			
			1930	1935	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
WA	49	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HI	51	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03

VOC CAT 52

		1930	1935	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AR	4	0.03	0.04	0.06	0.07	0.03	0.10	0.12	0.13	0.05	0.07	0.09	0.06	0.08	0.16
CA	5	0.23	0.24	0.27	0.29	0.32	0.40	0.46	0.50	0.24	0.27	0.35	0.28	0.35	0.60
CT	7	2.87	2.73	3.01	3.20	3.30	3.53	4.13	4.48	2.71	2.63	3.04	3.14	3.55	5.36
DE	8	45.03	46.50	61.09	70.51	80.87	104.93	122.23	132.64	55.43	68.76	96.85	63.71	87.05	158.87
GA	11	0.07	0.07	0.09	0.09	0.10	0.11	0.13	0.14	0.03	0.03	0.10	0.09	0.11	0.17
IL	14	0.12	0.12	0.13	0.14	0.16	0.18	0.22	0.23	0.12	0.13	0.17	0.14	0.17	0.28
IN	20	0.03	0.03	0.03	0.03	0.04	0.05	0.05	0.06	0.03	0.03	0.04	0.03	0.04	0.07
ID	21	1.45	1.23	1.41	1.49	1.58	1.56	1.83	1.98	1.26	1.25	1.24	1.47	1.70	2.37
IA	22	1.77	1.68	1.97	2.19	2.38	2.85	3.33	3.61	1.75	1.94	2.50	2.06	2.56	4.33
IL	30	0.15	0.17	0.20	0.21	0.23	0.23	0.32	0.35	0.18	0.19	0.24	0.21	0.25	0.42
NJ	31	0.82	0.79	0.92	1.00	1.09	1.29	1.51	1.64	0.84	0.93	1.19	0.96	1.17	1.96
NC	34	5.40	5.47	6.34	6.74	7.12	7.84	9.17	9.96	5.71	5.82	6.89	6.61	7.67	11.92
OH	36	2.33	2.30	2.66	3.03	3.35	3.98	4.65	5.05	2.39	2.76	3.54	2.77	3.61	6.05
PA	39	1.86	1.83	2.18	2.27	2.49	2.94	3.45	3.74	1.97	2.08	2.68	2.27	2.68	4.48
RI	41	0.50	0.50	0.54	0.57	0.59	0.65	0.76	0.82	0.43	0.47	0.55	0.57	0.64	0.98
SC	42	17.97	16.79	19.85	21.24	22.51	24.82	29.04	31.51	17.83	18.32	21.63	20.70	24.23	37.75
TH	44	74.45	79.99	97.15	114.75	132.95	172.68	202.02	219.22	89.61	116.73	170.51	101.32	143.13	262.57
TX	45	0.05	0.06	0.11	0.14	0.16	0.21	0.25	0.27	0.10	0.13	0.19	0.12	0.17	0.32
VA	48	3.49	4.49	5.66	6.36	7.09	8.68	10.16	11.02	5.12	5.83	7.69	5.90	7.63	13.20
HI	51	0.32	0.35	0.38	0.41	0.45	0.52	0.61	0.66	0.35	0.37	0.46	0.40	0.49	0.79

VOC CAT 53

		1930	1935	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL	1	0.20	0.24	0.30	0.34	0.38	0.49	0.62	0.74	0.27	0.32	0.56	0.31	0.42	0.93
AR	4	0.37	0.43	0.55	0.60	0.66	0.85	1.06	1.28	0.43	0.56	1.00	0.56	0.72	1.59
CA	5	1.47	1.58	1.81	1.91	2.07	2.66	3.33	4.01	1.61	1.75	3.07	1.84	2.27	4.99
CO	6	1.27	1.35	1.61	1.76	2.02	2.79	3.49	4.21	1.42	1.65	3.13	1.64	2.22	5.23
DE	8	0.03	0.03	0.03	0.04	0.04	0.05	0.07	0.09	0.03	0.04	0.07	0.03	0.05	0.10
CA	11	0.06	0.03	0.10	0.11	0.13	0.17	0.22	0.26	0.09	0.11	0.19	0.10	0.14	0.33
IL	14	0.02	0.03	0.04	0.05	0.05	0.10	0.13	0.15	0.04	0.05	0.12	0.04	0.07	0.19
IN	15	0.52	0.62	0.71	0.78	0.88	1.17	1.46	1.76	0.67	0.80	1.44	0.72	0.96	2.19
KY	18	0.09	0.11	0.13	0.15	0.16	0.21	0.27	0.32	0.12	0.15	0.26	0.13	0.18	0.40
LA	19	1.17	1.23	1.27	1.32	1.40	1.71	2.14	2.58	1.19	1.24	2.06	1.29	1.54	3.21
IN	20	0.02	0.02	0.02	0.02	0.02	0.03	0.04	0.04	0.02	0.02	0.04	0.02	0.03	0.06
ND	21	0.01	0.01	0.02	0.02	0.02	0.03	0.04	0.04	0.02	0.02	0.03	0.02	0.02	0.06
HI	23	0.07	0.08	0.10	0.12	0.13	0.18	0.23	0.28	0.09	0.12	0.21	0.10	0.15	0.34

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAH/INDVOC 11/22/85

VOC CAT 53

	REFERENCE CASE							LOW CASE			HIGH CASE			
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
HI 24	0.03	0.04	0.05	0.05	0.06	0.08	0.10	0.11	0.04	0.05	0.09	0.05	0.06	0.14
HS 25	2.46	2.94	3.68	4.09	4.55	5.99	7.51	9.04	3.24	3.80	6.30	3.75	4.99	11.25
HO 26	0.38	0.54	0.63	0.67	0.74	0.94	1.18	1.42	0.55	0.61	1.07	0.64	0.81	1.76
HT 27	0.11	0.11	0.14	0.15	0.16	0.19	0.24	0.29	0.12	0.14	0.24	0.14	0.18	0.37
HU 30	0.02	0.02	0.03	0.03	0.03	0.04	0.06	0.07	0.02	0.03	0.05	0.03	0.04	0.08
HJ 31	0.03	0.03	0.04	0.04	0.05	0.06	0.08	0.10	0.04	0.04	0.03	0.09	0.05	0.12
HC 34	0.27	0.32	0.40	0.45	0.51	0.69	0.86	1.04	0.36	0.43	0.77	0.41	0.56	1.29
GK 37	0.09	0.10	0.11	0.12	0.14	0.18	0.22	0.27	0.11	0.13	0.24	0.11	0.15	0.33
OR 38	3.21	3.50	4.16	4.57	4.89	5.91	7.40	8.91	3.84	4.36	7.31	4.23	5.36	11.09
PA 39	0.25	0.31	0.33	0.41	0.47	0.63	0.79	0.95	0.34	0.40	0.73	0.39	0.51	1.18
SC 42	1.22	1.52	1.91	2.14	2.43	3.25	4.08	4.91	1.63	2.01	3.64	1.94	2.66	6.11
TH 44	1.53	2.15	2.39	2.66	2.95	3.73	4.68	5.63	2.31	2.75	4.76	2.43	3.24	7.01
TX 45	0.39	0.54	0.67	0.73	0.79	1.01	1.26	1.52	0.60	0.66	1.14	0.63	0.86	1.89
VT 47	0.02	0.03	0.03	0.03	0.04	0.05	0.06	0.03	0.03	0.03	0.06	0.03	0.04	0.09
VA 48	5.24	6.32	7.70	8.43	9.39	12.32	15.43	18.58	6.66	7.64	13.68	7.84	10.29	23.12
WA 49	0.65	0.69	0.87	0.97	1.04	1.27	1.59	1.91	0.80	0.93	1.57	0.89	1.14	2.33
HI 51	0.05	0.07	0.08	0.09	0.10	0.13	0.17	0.20	0.07	0.09	0.16	0.08	0.11	0.25

VOC CAT 54

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
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CA 5	0.80	0.93	1.22	1.46	1.64	2.01	2.31	2.53	1.12	1.43	1.87	1.28	1.74	3.03
GA 11	0.10	0.12	0.15	0.19	0.21	0.26	0.30	0.33	0.19	0.18	0.24	0.16	0.22	0.39
LA 19	0.90	0.91	0.99	1.05	1.14	1.33	1.52	1.67	0.91	1.03	1.23	1.04	1.22	2.00
HI 23	0.46	0.51	0.65	0.84	1.05	1.53	1.76	1.93	0.60	0.91	1.42	0.63	1.12	2.31
HI 30	0.02	0.02	0.03	0.03	0.04	0.05	0.06	0.06	0.03	0.03	0.06	0.03	0.04	0.07
HC 34	0.27	0.35	0.45	0.54	0.61	0.76	0.87	0.95	0.42	0.53	0.71	0.47	0.65	1.14
OH 36	1.94	2.14	2.56	2.87	3.07	3.45	3.96	4.34	2.36	2.67	3.19	2.69	3.27	5.19
OR 39	0.34	0.33	0.53	0.63	0.72	0.90	1.03	1.13	0.48	0.63	0.84	0.55	0.77	1.35
PA 39	7.71	8.90	11.33	13.46	15.13	18.67	21.45	23.49	10.48	13.19	17.32	11.93	16.12	28.11
SC 42	0.13	0.20	0.30	0.35	0.41	0.55	0.64	0.70	0.25	0.32	0.45	0.32	0.44	0.83
TH 44	1.43	1.67	2.10	2.47	2.74	3.31	3.80	4.16	1.93	2.40	3.03	2.20	2.92	4.98
TX 45	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.00	0.01	0.01
VA 48	2.42	2.99	3.85	4.58	5.15	6.34	7.29	7.98	3.55	4.47	5.85	4.04	5.49	9.54
WA 49	9.32	10.44	12.79	14.47	15.90	18.98	21.81	23.87	11.72	13.05	17.65	13.41	16.94	28.57
HI 51	0.03	0.04	0.05	0.06	0.07	0.08	0.10	0.11	0.05	0.06	0.08	0.05	0.07	0.13

VOC CAT 55

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
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AL 1	0.10	0.11	0.16	0.19	0.21	0.27	0.32	0.35	0.13	0.17	0.25	0.17	0.23	0.42
AR 4	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
CA 5	0.34	0.36	0.47	0.55	0.64	0.82	0.95	1.06	0.42	0.54	0.80	0.49	0.69	1.26
CO 6	0.06	0.06	0.08	0.09	0.11	0.13	0.15	0.17	0.07	0.09	0.12	0.08	0.11	0.20

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAM/INDVOC 11/22/85

VOC CAT 55

	REFERENCE CASE							LOW CASE			HIGH CASE			
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
GA 11	0.73	0.80	1.04	1.18	1.32	1.60	1.85	2.05	0.92	1.11	1.57	1.03	1.43	2.44
IL 14	0.10	0.09	0.11	0.12	0.13	0.16	0.13	0.20	0.09	0.11	0.15	0.11	0.14	0.24
IN 15	0.85	0.84	1.09	1.27	1.41	1.70	1.97	2.13	0.93	1.12	1.56	1.14	1.52	2.60
IA 16	0.31	0.28	0.36	0.44	0.49	0.62	0.72	0.79	0.32	0.42	0.62	0.38	0.53	0.94
KS 17	0.18	0.19	0.23	0.25	0.28	0.34	0.39	0.44	0.21	0.24	0.33	0.24	0.31	0.52
KY 18	0.45	0.44	0.57	0.65	0.74	0.92	1.06	1.13	0.50	0.61	0.85	0.69	0.80	1.41
LA 19	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
ME 20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MD 21	0.07	0.06	0.07	0.05	0.09	0.11	0.13	0.14	0.06	0.08	0.11	0.08	0.10	0.17
MA 22	0.14	0.15	0.20	0.23	0.25	0.31	0.36	0.40	0.17	0.20	0.28	0.21	0.28	0.48
MI 23	5.05	5.14	6.00	6.53	7.17	8.60	9.93	11.02	5.32	6.05	8.59	6.26	7.75	13.12
MI 24	1.20	1.32	1.64	1.81	1.98	2.37	2.76	3.04	1.45	1.65	2.31	1.72	2.14	3.62
MD 26	0.06	0.06	0.07	0.09	0.08	0.10	0.11	0.13	0.06	0.07	0.10	0.07	0.09	0.15
ME 28	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02
NJ 31	0.60	0.55	0.65	0.72	0.77	0.91	1.05	1.16	0.57	0.63	0.87	0.63	0.83	1.39
NC 34	0.33	0.42	0.54	0.61	0.68	0.81	0.94	1.04	0.48	0.57	0.79	0.57	0.73	1.24
OH 35	0.47	0.44	0.55	0.61	0.67	0.81	0.94	1.04	0.48	0.56	0.79	0.57	0.73	1.24
OK 37	0.39	0.43	0.52	0.62	0.69	0.82	0.95	1.05	0.46	0.53	0.79	0.55	0.75	1.25
OR 38	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.01	0.03
PA 39	2.51	2.30	2.83	3.11	3.41	4.17	4.81	5.54	2.55	2.87	4.09	3.01	3.68	6.36
SC 42	0.15	0.18	0.24	0.27	0.31	0.38	0.43	0.43	0.21	0.26	0.37	0.25	0.33	0.57
TH 44	0.14	0.15	0.17	0.18	0.20	0.23	0.27	0.29	0.15	0.17	0.23	0.13	0.21	0.35
TX 45	0.98	1.18	1.49	1.77	1.96	2.33	2.69	2.98	1.31	1.64	2.26	1.55	2.12	3.55
UT 46	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
VA 48	0.04	0.05	0.06	0.07	0.08	0.10	0.12	0.13	0.05	0.07	0.09	0.07	0.09	0.15
WA 49	0.02	0.02	0.03	0.03	0.04	0.05	0.06	0.06	0.03	0.03	0.05	0.03	0.04	0.08
WV 50	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.04
HI 51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VOC CAT 56

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
CA 5	0.01	0.02	0.02	0.02	0.03	0.03	0.04	0.04	0.02	0.02	0.03	0.02	0.03	0.05
GA 11	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.01	0.03
ID 13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IN 15	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.02	0.03
KY 18	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.01	0.03
ID 21	0.07	0.07	0.03	0.09	0.10	0.12	0.13	0.15	0.07	0.08	0.11	0.03	0.10	0.18
IN 23	0.71	0.72	0.75	0.78	0.82	0.96	1.12	1.24	0.72	0.74	0.99	0.76	0.88	1.47
OR 33	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.04	0.02	0.02	0.03	0.02	0.02	0.04
PA 39	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
SC 42	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.04	0.02	0.02	0.03	0.02	0.03	0.04
TH 44	0.09	0.10	0.12	0.13	0.14	0.17	0.20	0.22	0.11	0.12	0.17	0.12	0.15	0.26
VA 48	0.05	0.06	0.04	0.03	0.03	0.04	0.04	0.05	0.03	0.03	0.03	0.04	0.03	0.05
HI 51	0.03	0.02	0.04	0.05	0.05	0.06	0.07	0.08	0.04	0.04	0.05	0.04	0.05	0.09

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAI/INDVOC 11/22/85

VOC CAT 56

	REFERENCE CASE							LOW CASE			HIGH CASE			
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
VOC CAT 56	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

VOC CAT 57

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	0.34	0.34	0.38	0.40	0.43	0.49	0.56	0.62	0.35	0.33	0.49	0.35	0.46	0.73
AZ 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CA 5	0.22	0.20	0.25	0.25	0.27	0.30	0.35	0.38	0.21	0.21	0.26	0.25	0.29	0.45
CT 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GA 11	12.44	12.64	13.96	14.87	15.81	18.19	20.65	22.76	13.11	14.12	18.00	14.23	16.93	27.06
IL 14	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02
IN 15	2.04	1.86	2.33	2.48	2.62	3.00	3.41	3.76	1.97	2.02	2.43	2.37	2.81	4.47
IA 16	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
KS 17	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.04
KY 13	0.45	0.47	0.57	0.63	0.68	0.80	0.91	1.00	0.51	0.57	0.74	0.58	0.73	1.19
LA 19	0.13	0.12	0.16	0.19	0.21	0.24	0.28	0.31	0.15	0.18	0.23	0.17	0.22	0.36
ND 21	0.46	0.39	0.43	0.46	0.50	0.59	0.67	0.74	0.23	0.42	0.55	0.44	0.53	0.88
HA 22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HI 23	5.50	5.27	5.88	5.94	6.15	6.84	7.76	8.56	5.20	5.17	6.37	6.00	6.53	10.17
HO 26	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.02
HT 27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HY 33	0.45	0.43	0.51	0.54	0.57	0.67	0.76	0.84	0.43	0.46	0.60	0.52	0.61	1.00
NC 34	0.02	0.02	0.03	0.03	0.03	0.04	0.04	0.05	0.02	0.03	0.03	0.03	0.03	0.06
GH 36	0.34	0.29	0.35	0.36	0.38	0.43	0.49	0.54	0.29	0.29	0.36	0.36	0.41	0.64
OR 33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01
PA 39	4.25	4.37	5.19	5.59	6.09	7.32	8.31	9.16	4.68	5.18	6.80	5.30	6.52	10.89
SC 42	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.04	0.04	0.04	0.04	0.05	0.06
TH 44	0.11	0.11	0.14	0.14	0.15	0.17	0.20	0.22	0.12	0.12	0.16	0.14	0.16	0.26
TX 45	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.04
VA 48	0.12	0.12	0.14	0.15	0.17	0.20	0.22	0.24	0.13	0.14	0.18	0.15	0.18	0.29
HA 49	0.21	0.18	0.21	0.21	0.22	0.25	0.28	0.31	0.18	0.18	0.23	0.21	0.24	0.37
WV 50	0.05	0.04	0.05	0.05	0.05	0.06	0.07	0.08	0.04	0.04	0.05	0.05	0.06	0.09
HI 51	0.03	0.03	0.04	0.04	0.04	0.04	0.05	0.06	0.03	0.03	0.04	0.04	0.04	0.07

VOC CAT 53

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	3.45	3.45	4.35	4.91	5.49	7.09	8.07	8.11	3.87	4.59	5.66	4.48	5.96	9.70
AZ 3	0.03	0.03	0.04	0.04	0.05	0.06	0.07	0.07	0.04	0.04	0.05	0.04	0.05	0.09
CA 5	8.66	9.98	12.80	14.44	16.04	20.32	23.12	23.23	10.99	13.06	15.80	13.19	17.42	27.79
CO 6	0.03	0.03	0.04	0.05	0.06	0.09	0.10	0.10	0.04	0.05	0.07	0.04	0.06	0.12
CT 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
FL 10	0.98	1.24	1.64	1.23	2.11	2.71	3.05	3.10	1.40	1.71	2.09	1.69	2.29	3.70
GA 11	0.04	0.05	0.06	0.07	0.08	0.10	0.12	0.12	0.06	0.07	0.09	0.07	0.09	0.14
IL 14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAM/INDVOC 11/22/85

VOC CAT 58

	REFERENCE CASE							LOW CASE			HIGH CASE			
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
IN 15	0.92	0.99	1.19	1.33	1.45	1.78	2.03	2.03	1.05	1.18	1.33	1.22	1.57	2.43
IA 16	0.05	0.05	0.06	0.07	0.03	0.10	0.11	0.11	0.06	0.07	0.09	0.06	0.08	0.13
KS 17	0.43	0.47	0.55	0.62	0.68	0.86	0.98	0.98	0.51	0.61	0.74	0.57	0.74	1.17
KY 18	16.14	18.56	22.57	25.90	28.55	35.71	40.63	40.82	20.25	23.68	28.14	23.25	31.00	48.82
LA 19	0.62	0.68	0.74	0.81	0.87	1.04	1.19	1.19	0.69	0.78	0.91	0.77	0.95	1.43
ED 21	7.90	8.65	9.36	9.63	10.62	13.57	15.45	15.52	8.39	9.18	11.27	9.64	11.53	18.56
HA 22	0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.04	0.02	0.02	0.03	0.02	0.03	0.05
HI 23	11.79	13.15	14.22	15.34	16.50	20.22	23.01	23.12	12.53	13.57	15.90	14.64	17.91	27.65
IS 25	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
HO 26	30.71	36.02	41.07	44.16	47.05	55.61	63.29	63.55	36.75	39.65	46.53	42.31	51.03	76.04
MI 30	0.17	0.22	0.31	0.37	0.44	0.63	0.72	0.73	0.26	0.35	0.48	0.32	0.48	0.87
NJ 31	0.32	0.31	0.33	0.32	0.33	0.37	0.42	0.42	0.30	0.28	0.29	0.34	0.35	0.50
NY 33	16.88	18.62	23.22	24.95	27.38	34.91	39.73	39.91	19.89	22.40	27.27	23.91	29.72	47.73
NC 34	1.85	2.04	2.21	2.25	2.30	2.55	2.90	2.91	2.00	1.92	1.99	2.28	2.50	3.43
OH 36	8.48	8.69	9.83	10.89	11.73	14.36	16.34	16.41	8.76	9.73	11.39	10.18	12.76	19.63
OK 37	2.03	2.45	2.61	2.93	3.19	3.96	4.50	4.53	2.55	3.00	3.64	2.69	3.47	5.41
OR 38	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.02	0.03
PA 39	16.09	17.20	19.85	21.85	23.81	29.64	33.73	33.89	18.18	20.73	24.79	20.45	25.85	40.53
SC 42	0.25	0.29	0.36	0.41	0.45	0.57	0.65	0.65	0.31	0.33	0.47	0.37	0.49	0.73
TN 44	0.73	0.96	1.07	1.14	1.22	1.45	1.65	1.66	0.96	1.03	1.19	1.11	1.32	1.99
TX 45	2.17	2.31	2.75	3.16	3.46	4.30	4.90	4.92	2.51	2.95	3.52	2.83	3.75	5.88
UT 46	0.07	0.07	0.09	0.11	0.13	0.19	0.21	0.21	0.08	0.11	0.14	0.09	0.15	0.26
VT 47	0.30	0.35	0.38	0.42	0.44	0.51	0.58	0.58	0.35	0.39	0.43	0.39	0.48	0.70
VA 48	4.91	6.62	7.69	8.60	9.50	12.03	13.69	13.75	7.15	8.39	10.17	7.93	10.31	16.45
WA 49	0.40	0.42	0.46	0.50	0.53	0.63	0.72	0.72	0.43	0.47	0.54	0.47	0.57	0.86
WV 50	0.04	0.03	0.06	0.05	0.05	0.06	0.07	0.07	0.04	0.04	0.05	0.04	0.05	0.08
WI 51	3.04	3.58	3.98	4.37	4.78	5.97	6.79	6.82	3.71	4.23	5.08	4.10	5.18	8.18
HY 52	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01

VOC CAT 59

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
CA 5	0.16	0.17	0.23	0.26	0.28	0.32	0.39	0.45	0.19	0.22	0.31	0.24	0.30	0.54
GA 11	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.02	0.03
IL 14	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.02
IN 15	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.04
IA 16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KS 17	1.10	1.22	1.56	1.70	1.82	2.15	2.61	2.97	1.26	1.37	1.99	1.60	1.97	3.59
KY 18	0.12	0.12	0.15	0.16	0.17	0.20	0.24	0.28	0.12	0.13	0.18	0.15	0.19	0.34
MD 21	31.63	35.90	46.53	53.41	60.21	77.87	94.64	107.66	43.08	52.70	85.86	48.04	65.18	130.04
MI 23	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02
MO 25	0.62	0.66	0.82	0.93	1.00	1.17	1.42	1.61	0.72	0.83	1.20	0.84	1.09	1.95
MT 27	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.04
MI 30	0.17	0.21	0.30	0.36	0.41	0.54	0.65	0.74	0.25	0.30	0.48	0.31	0.45	0.89

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAM/INDVOC 11/22/85

VOC CAT 59

	REFERENCE CASE								LOW CASE			HIGH CASE		
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
NY 33	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.03	0.01	0.01	0.02	0.02	0.02	0.03
NC 34	0.19	0.20	0.22	0.23	0.23	0.23	0.23	0.32	0.19	0.17	0.21	0.23	0.25	0.39
OK 37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OR 33	0.12	0.13	0.12	0.12	0.11	0.12	0.15	0.17	0.11	0.09	0.13	0.13	0.12	0.20
PA 39	0.83	0.23	0.99	1.01	1.06	1.15	1.40	1.59	0.84	0.83	1.10	1.02	1.15	1.92
SC 42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TN 44	0.12	0.15	0.19	0.20	0.21	0.23	0.28	0.32	0.15	0.16	0.22	0.19	0.23	0.39
TX 45	0.10	0.09	0.12	0.14	0.15	0.17	0.20	0.23	0.10	0.11	0.15	0.12	0.15	0.28
VT 47	0.40	0.49	0.61	0.62	0.65	0.79	0.96	1.10	0.49	0.48	0.73	0.63	0.71	1.32
VA 48	0.46	0.57	0.67	0.73	0.78	0.83	1.06	1.21	0.61	0.65	0.90	0.69	0.84	1.46
WA 49	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.02	0.03
HI 51	0.66	0.67	0.79	0.82	0.88	1.04	1.26	1.44	0.66	0.66	0.95	0.31	0.95	1.73

VOC CAT 60

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	0.40	0.34	0.45	0.55	0.59	0.67	0.78	0.85	0.41	0.51	0.66	0.47	0.63	1.01
CA 5	3.62	4.19	5.30	6.21	6.98	8.27	9.68	10.53	4.70	5.84	8.04	5.47	7.47	12.53
CO 6	1.47	1.94	2.47	2.77	3.15	4.01	4.69	5.12	2.19	2.64	3.86	2.55	3.37	6.07
CT 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DE 8	0.86	0.82	1.01	1.07	1.15	1.31	1.54	1.63	0.85	0.91	1.17	1.04	1.24	1.99
GA 11	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.02	0.02	0.03	0.02	0.03	0.04
IL 14	0.10	0.09	0.11	0.12	0.13	0.14	0.17	0.18	0.09	0.10	0.12	0.12	0.14	0.22
IN 15	0.05	0.03	0.03	0.04	0.04	0.05	0.06	0.07	0.03	0.04	0.05	0.03	0.05	0.08
IA 16	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
KY 13	0.65	0.71	0.99	1.20	1.37	1.70	1.99	2.18	0.86	1.12	1.60	1.02	1.46	2.53
ID 21	7.12	5.31	6.21	6.50	6.98	8.03	9.40	10.27	5.34	5.52	7.18	6.41	7.47	12.16
MA 22	7.03	7.33	9.63	11.58	12.73	14.92	17.46	19.03	8.47	10.42	14.24	9.98	13.63	22.60
MI 23	4.44	4.15	4.91	5.23	6.02	6.83	7.99	8.73	4.48	5.21	6.79	5.06	6.44	10.34
MO 26	0.15	0.18	0.21	0.23	0.24	0.26	0.31	0.34	0.18	0.19	0.23	0.22	0.26	0.40
MI 30	0.10	0.12	0.15	0.18	0.22	0.30	0.35	0.38	0.14	0.18	0.26	0.16	0.24	0.45
IU 31	208.00	214.51	252.86	274.51	296.46	338.89	396.54	433.30	235.47	257.81	335.39	260.81	317.35	513.03
NY 33	50.15	51.39	58.50	64.85	69.03	81.65	95.54	104.39	52.66	58.51	79.76	60.33	73.90	123.62
NC 36	45.21	48.31	53.33	68.12	75.55	88.91	104.04	113.68	53.34	65.64	83.75	60.21	80.88	134.62
SC 42	0.30	0.35	0.43	0.48	0.52	0.59	0.69	0.75	0.39	0.45	0.58	0.45	0.56	0.89
IN 44	1.01	1.03	1.23	1.47	1.74	2.21	2.59	2.83	1.15	1.50	2.15	1.27	1.85	3.35
TX 45	109.17	133.71	162.83	191.21	223.90	315.50	369.17	403.39	153.18	203.96	325.25	167.94	239.72	477.68
VA 48	2.92	3.72	4.44	4.78	5.24	6.15	7.20	7.86	3.80	4.16	5.52	4.58	5.61	9.31
WA 49	0.21	0.21	0.26	0.30	0.31	0.37	0.43	0.47	0.24	0.27	0.35	0.27	0.34	0.56
HI 51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAM/INDVOC 11/22/85

VOC CAT 61

	REFERENCE CASE							LOW CASE			HIGH CASE			
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
CA 5	0.23	0.32	0.33	0.45	0.52	0.65	0.78	0.89	0.36	0.46	0.72	0.40	0.56	1.05
IL 14	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.01	0.02	0.03	0.01	0.02	0.04
IN 26	1.33	1.54	1.87	2.19	2.48	3.15	3.78	4.27	1.74	2.18	3.48	1.94	2.66	5.05
IN 31	1.02	1.18	1.41	1.61	1.83	2.35	2.83	3.20	1.31	1.61	2.61	1.47	1.97	3.79
OH 36	0.06	0.07	0.08	0.10	0.11	0.14	0.17	0.19	0.08	0.10	0.15	0.09	0.12	0.22
RI 41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TX 45	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

VOC CAT 62

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
CA 5	7.65	7.94	9.15	10.25	11.41	14.74	18.65	22.75	8.73	10.45	19.21	9.21	12.25	27.68
CT 7	0.32	0.32	0.37	0.43	0.46	0.56	0.71	0.86	0.35	0.40	0.71	0.33	0.50	1.05
DE 8	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.01	0.01	0.03	0.01	0.02	0.04
DC 9	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.04	0.01	0.02	0.03	0.02	0.02	0.04
IL 14	0.39	0.32	0.34	0.36	0.37	0.43	0.55	0.67	0.33	0.33	0.55	0.35	0.40	0.82
IN 15	0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.05	0.02	0.02	0.04	0.02	0.03	0.06
KY 18	0.66	0.63	0.69	0.74	0.79	0.99	1.25	1.53	0.66	0.72	1.29	0.70	0.85	1.86
MA 22	0.10	0.10	0.11	0.12	0.13	0.16	0.20	0.25	0.10	0.11	0.20	0.11	0.14	0.30
MI 30	0.03	0.03	0.09	0.11	0.12	0.14	0.18	0.22	0.09	0.10	0.18	0.10	0.12	0.26
IC 34	0.24	0.24	0.25	0.26	0.27	0.28	0.35	0.43	0.24	0.24	0.36	0.26	0.29	0.53
OR 33	0.11	0.10	0.11	0.12	0.13	0.16	0.21	0.25	0.10	0.12	0.21	0.11	0.14	0.31
PA 39	0.15	0.15	0.16	0.18	0.19	0.23	0.30	0.36	0.16	0.17	0.30	0.16	0.20	0.44
SC 42	0.32	0.34	0.33	0.41	0.45	0.57	0.72	0.83	0.37	0.42	0.76	0.33	0.48	1.07
TN 44	0.15	0.14	0.15	0.17	0.19	0.23	0.29	0.35	0.15	0.17	0.29	0.15	0.20	0.43
VT 47	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
VA 48	0.05	0.04	0.05	0.05	0.06	0.08	0.10	0.12	0.05	0.06	0.10	0.05	0.06	0.15
WA 49	0.07	0.05	0.06	0.07	0.08	0.09	0.12	0.14	0.06	0.07	0.12	0.06	0.08	0.17
HI 51	0.31	0.31	0.33	0.35	0.33	0.46	0.58	0.70	0.32	0.34	0.59	0.33	0.40	0.86

VOC CAT 63

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	0.02	0.02	0.02	0.03	0.04	0.06	0.07	0.09	0.02	0.03	0.07	0.03	0.04	0.11
AZ 3	2.42	3.22	4.62	5.87	7.11	9.74	12.41	15.06	4.04	5.83	11.09	4.87	7.85	19.00
AR 4	0.01	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.02	0.02	0.04	0.02	0.03	0.06
CA 5	45.20	61.26	87.63	110.64	134.11	190.80	242.90	294.79	76.70	109.23	213.24	92.33	147.98	371.95
CO 6	0.25	0.24	0.35	0.42	0.49	0.62	0.79	0.96	0.30	0.39	0.67	0.37	0.54	1.21
CT 7	0.84	0.84	1.08	1.30	1.53	2.03	2.59	3.14	0.92	1.19	2.16	1.14	1.68	3.97
FL 10	0.13	0.15	0.20	0.27	0.35	0.58	0.74	0.89	0.20	0.31	0.70	0.22	0.39	1.13
IL 14	17.59	16.04	20.05	23.36	26.61	34.29	43.66	52.98	17.63	21.69	37.73	21.14	29.36	66.85
IN 15	8.55	9.52	11.42	12.53	14.06	17.22	21.93	26.61	10.03	11.49	19.54	12.04	15.49	33.57
IA 16	0.20	0.19	0.24	0.23	0.32	0.41	0.52	0.64	0.21	0.25	0.45	0.26	0.35	0.80
KS 17	0.29	0.24	0.35	0.42	0.49	0.67	0.85	1.03	0.30	0.39	0.70	0.37	0.54	1.30

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS) ANL/ARAI/INDVOC 11/22/85

VOC CAT 63

	REFERENCE CASE								LOW CASE			HIGH CASE		
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
KY 18	4.49	4.72	6.09	7.74	9.90	14.67	18.68	22.67	5.70	8.65	17.36	6.42	10.93	28.60
HI 20	0.33	0.40	0.54	0.62	0.74	0.93	1.18	1.43	0.45	0.57	0.97	0.57	0.81	1.80
MD 21	0.51	0.77	0.98	1.13	1.30	1.64	2.09	2.53	0.87	1.08	1.92	1.03	1.43	3.19
MA 22	9.30	9.57	13.32	15.67	17.92	23.57	30.01	36.42	11.30	14.36	25.59	14.04	19.78	45.95
HI 23	13.87	15.99	18.60	20.88	24.12	32.42	41.27	50.09	16.17	19.52	35.50	19.61	26.61	63.20
MI 24	0.34	0.39	0.52	0.59	0.67	0.90	1.15	1.39	0.45	0.53	0.96	0.55	0.74	1.76
HS 25	0.75	0.79	1.09	1.31	1.51	2.03	2.65	3.22	0.93	1.21	2.29	1.15	1.67	4.06
ID 26	3.47	4.39	5.45	6.11	6.98	9.07	11.54	14.01	4.75	5.76	10.12	5.75	7.70	17.68
NE 28	0.12	0.14	0.17	0.19	0.22	0.28	0.35	0.43	0.15	0.18	0.32	0.18	0.29	0.54
MI 30	3.55	4.74	6.91	9.09	11.56	17.70	22.54	27.35	6.05	9.32	20.00	7.28	12.75	34.51
NJ 31	0.03	0.02	0.03	0.03	0.03	0.04	0.06	0.07	0.03	0.03	0.05	0.03	0.04	0.08
NC 34	1.28	1.65	2.15	2.52	2.99	4.08	5.19	6.30	1.91	2.49	4.68	2.26	3.30	7.95
OII 36	5.38	5.99	7.62	8.65	9.86	12.89	16.41	19.92	6.43	7.86	14.04	8.03	10.88	25.13
OK 37	0.43	0.53	0.70	0.91	1.12	1.63	2.07	2.52	0.65	0.97	1.91	0.74	1.24	3.17
OR 38	0.28	0.28	0.42	0.52	0.62	0.87	1.10	1.34	0.33	0.52	1.01	0.44	0.68	1.69
PA 39	3.28	3.16	4.29	5.05	6.04	8.42	10.72	13.01	3.68	4.99	9.83	4.52	6.66	16.41
RI 41	1.22	1.19	1.62	1.91	2.14	2.63	3.34	4.06	1.37	1.68	2.78	1.71	2.37	5.12
SC 42	14.98	19.57	26.14	30.11	34.24	44.27	56.37	68.40	23.61	29.63	52.31	27.56	38.45	86.31
TH 44	11.09	15.17	20.46	23.68	27.97	38.78	49.37	59.91	17.12	22.41	43.35	21.57	30.87	75.60
TX 45	6.19	6.59	9.32	11.25	13.47	19.11	24.33	29.53	7.98	11.09	21.85	9.82	14.86	37.26
VT 47	0.27	0.30	0.41	0.52	0.63	0.90	1.15	1.39	0.37	0.54	1.06	0.43	0.70	1.76
VA 48	1.88	2.46	3.20	3.68	4.31	6.04	7.69	9.33	2.87	3.61	6.00	3.33	4.76	11.78
WA 49	0.14	0.14	0.18	0.22	0.26	0.35	0.45	0.54	0.17	0.22	0.41	0.19	0.29	0.69
HI 51	3.33	3.42	4.28	4.60	5.16	6.46	8.22	9.98	3.67	4.22	7.51	4.51	5.69	12.59

VOC CAT 64

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
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VOC CAT 65

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
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VOC CAT 66

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
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NH 32	0.35	0.46	0.54	0.63	0.70	0.91	1.12	1.24	0.49	0.60	0.99	0.56	0.78	1.53
PA 39	0.34	0.41	0.51	0.55	0.62	0.85	1.04	1.16	0.42	0.47	0.78	0.53	0.69	1.43
TX 45	0.04	0.05	0.06	0.06	0.07	0.09	0.12	0.13	0.05	0.05	0.09	0.07	0.08	0.16

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10⁶*3 TONS)

ANL/ARAH/INDVOC 11/22/85

VOC CAT 67

	REFERENCE CASE								LOW CASE			HIGH CASE		
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
CT 7	0.18	0.16	0.18	0.21	0.22	0.25	0.28	0.30	0.18	0.20	0.25	0.19	0.23	0.34
IL 14	0.04	0.03	0.03	0.04	0.04	0.05	0.05	0.05	0.03	0.03	0.04	0.03	0.04	0.06
IN 24	4.18	4.02	4.50	4.74	4.99	6.04	6.79	7.32	4.45	4.63	6.04	4.52	5.21	8.33
MD 26	27.22	28.60	29.95	31.90	33.51	37.82	42.52	45.83	29.32	31.37	38.74	30.03	35.00	52.18
PA 39	2.00	1.60	1.81	1.90	2.00	2.38	2.67	2.83	1.78	1.83	2.45	1.82	2.09	3.28
TX 45	0.64	0.57	0.62	0.65	0.66	0.76	0.85	0.92	0.61	0.62	0.78	0.62	0.69	1.05

VOC CAT 68

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
CT 7	9.64	11.83	14.66	16.62	18.60	23.97	28.91	32.04	12.64	15.02	23.59	15.27	20.51	39.26
PA 39	0.31	0.34	0.42	0.44	0.50	0.67	0.80	0.89	0.35	0.42	0.67	0.43	0.55	1.09

VOC CAT 69

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
CT 7	2.62	3.50	4.21	4.86	5.59	6.85	8.08	9.06	3.87	4.87	7.20	4.36	5.94	10.63
IN 24	14.34	18.10	21.50	25.03	28.05	34.47	40.66	45.63	20.41	25.24	37.67	22.30	29.82	53.51
PA 39	3.29	4.05	5.24	5.77	6.68	8.96	10.57	11.85	4.87	5.93	9.55	5.43	7.10	13.91
TX 45	0.13	0.16	0.21	0.26	0.29	0.37	0.43	0.48	0.20	0.26	0.40	0.21	0.31	0.57

VOC CAT 70

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
CT 7	13.51	14.65	17.13	19.23	20.99	25.36	30.10	33.40	15.42	17.53	24.40	17.68	22.79	40.52
IN 24	0.12	0.09	0.12	0.15	0.17	0.22	0.26	0.29	0.11	0.15	0.22	0.13	0.19	0.35
NO 26	0.68	0.80	0.91	0.92	1.05	1.24	1.48	1.64	0.82	0.88	1.20	0.94	1.14	1.99
PA 39	2.02	2.53	3.40	3.82	4.65	7.01	8.31	9.23	3.14	4.19	7.33	3.51	5.06	11.19

VOC CAT 71

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
PA 39	0.46	0.60	0.75	0.86	1.02	1.47	1.91	2.17	0.63	0.80	1.46	0.78	1.15	2.80

VOC CAT 72

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
PA 39	1.11	1.34	1.65	1.83	2.16	2.95	3.77	4.42	1.42	1.74	3.18	1.72	2.41	5.61

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10³ TONS)

ANL/ARAM/INDVOC 11/22/85

VOC CAT 73

	REFERENCE CASE								LOW CASE			HIGH CASE		
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
ND 26	0.14	0.19	0.24	0.29	0.33	0.41	0.50	0.57	0.22	0.28	0.43	0.26	0.36	0.68
OH 35	0.09	0.12	0.14	0.16	0.18	0.23	0.27	0.31	0.13	0.15	0.24	0.15	0.19	0.37
PA 39	0.73	0.82	1.13	1.37	1.63	2.20	2.66	3.04	1.01	1.40	2.42	1.19	1.75	3.63
TX 45	0.53	0.73	0.98	1.18	1.39	1.78	2.16	2.46	0.92	1.22	2.01	1.04	1.50	2.94

VOC CAT 74

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
MI 24	5.19	7.87	11.99	15.53	19.22	25.66	31.51	37.16	11.10	16.86	30.44	13.01	20.45	44.16

VOC CAT 75

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
PA 39	0.28	0.31	0.39	0.43	0.49	0.63	0.76	0.84	0.37	0.44	0.62	0.40	0.53	1.02

VOC CAT 76

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
PA 39	0.02	0.01	0.02	0.02	0.03	0.03	0.04	0.06	0.02	0.03	0.04	0.02	0.03	0.05
TX 45	0.07	0.06	0.09	0.10	0.11	0.14	0.16	0.17	0.03	0.10	0.15	0.09	0.12	0.19

VOC CAT 77

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	2.83	3.62	4.34	4.83	5.58	7.19	8.70	9.58	3.91	4.74	7.52	4.48	6.14	11.71
AZ 3	1.10	1.65	2.03	2.47	2.92	3.98	4.81	5.29	1.78	2.33	3.89	2.15	3.21	6.47
AR 4	1.50	2.05	2.61	3.02	3.39	4.20	5.09	5.60	2.24	2.77	4.25	2.69	3.73	6.84
CA 5	120.23	149.83	186.60	221.99	257.73	355.20	429.71	473.03	164.31	211.47	350.24	192.57	283.38	578.29
CO 6	7.23	7.11	9.25	10.86	11.98	14.27	17.26	19.00	7.83	9.54	13.65	9.54	13.17	23.23
CT 7	24.47	28.99	35.07	39.70	44.15	55.20	66.78	73.51	29.59	34.30	52.42	35.20	48.54	89.87
DE 8	47.70	66.99	77.77	90.15	99.93	118.74	143.69	158.13	64.63	77.96	111.04	80.26	109.83	193.32
FL 10	9.41	11.82	14.39	18.32	22.73	36.02	43.58	47.97	13.83	20.37	38.91	14.86	24.99	58.65
GA 11	15.74	23.91	26.90	29.08	33.00	43.18	52.24	57.51	22.69	26.33	41.78	27.77	36.29	70.30
IL 14	76.27	80.30	97.32	109.95	123.65	159.97	193.53	213.04	82.13	98.26	154.51	100.44	135.96	260.45
IH 15	229.69	272.04	323.38	383.30	423.80	513.56	621.28	683.92	222.15	340.12	491.07	333.74	465.97	836.08
IA 16	1.81	1.82	2.15	2.47	2.77	3.55	4.30	4.73	1.92	2.36	3.73	2.22	3.05	5.78
KS 17	3.78	4.49	5.39	6.06	6.80	8.99	10.87	11.97	4.56	5.45	8.69	5.56	7.48	14.63
KY 18	23.33	34.16	41.45	47.48	54.05	71.52	85.62	95.24	36.45	43.78	69.50	42.78	59.43	116.44
LA 19	12.27	12.87	15.96	18.17	20.42	25.50	32.06	35.29	13.95	17.00	26.55	16.47	22.45	43.14
NE 20	6.75	8.33	9.33	10.57	11.58	14.28	17.27	19.01	8.53	9.93	14.69	9.68	12.73	23.24
ND 21	13.13	12.44	11.97	11.03	12.18	15.93	19.27	21.21	10.17	9.88	15.66	12.36	13.39	25.93
MA 22	32.41	32.80	34.90	37.79	33.22	44.65	54.02	59.46	30.89	31.30	44.31	36.02	42.02	72.69

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

AHL/ARAH/INDVOC 11/22/85

VOC CAT 77

	REFERENCE CASE								LOW CASE			HIGH CASE		
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
HI 23	130.68	169.70	176.76	191.12	214.05	278.46	336.86	370.83	153.60	173.79	273.52	182.41	235.35	453.34
HI 24	11.61	15.27	17.70	19.72	22.00	28.95	35.03	38.56	15.85	18.47	29.57	18.26	24.19	47.14
IL 25	9.65	12.48	15.41	17.21	19.23	24.33	29.49	32.46	13.11	15.23	23.54	15.90	21.14	39.68
IN 26	209.48	256.43	287.47	311.21	339.29	412.98	499.60	549.96	254.50	281.86	422.45	296.69	373.72	672.34
NE 28	46.46	58.72	73.98	85.83	98.50	131.01	158.48	174.46	63.08	80.19	132.60	76.35	108.30	213.23
NV 29	1.18	1.49	1.83	2.53	3.24	5.22	6.32	6.96	1.82	3.01	5.94	1.94	3.56	8.51
NM 30	17.92	22.76	26.84	31.26	38.70	55.46	67.10	73.86	24.10	31.73	53.52	27.70	42.56	90.30
NJ 31	14.46	17.07	20.44	22.60	25.33	33.04	39.97	44.00	17.74	20.89	32.86	21.10	27.85	53.80
NY 33	40.49	45.30	54.94	59.50	66.52	86.36	104.47	115.00	46.93	53.62	83.60	56.70	73.14	140.59
NC 34	23.00	30.40	37.39	41.39	46.10	59.83	72.45	79.75	31.50	35.94	56.48	38.59	50.69	97.49
OH 35	122.83	151.26	171.39	186.13	203.30	255.54	309.13	340.29	147.39	164.04	297.16	176.83	223.53	416.03
OK 37	543.78	720.02	832.39	997.46	1104.63	1463.53	1770.55	1949.02	797.34	932.20	1470.87	910.67	1214.59	2382.74
OR 38	2.34	2.71	3.10	3.72	4.12	6.02	7.28	8.01	2.02	3.42	6.16	3.20	4.53	9.79
PA 39	189.47	202.03	234.79	253.83	285.40	373.20	451.47	496.98	212.62	241.69	330.34	242.31	313.80	607.53
RI 41	8.28	8.66	9.31	9.98	10.53	12.15	14.70	16.18	8.26	8.61	11.89	9.61	11.58	19.78
SC 42	154.18	226.49	253.48	288.70	321.49	404.33	489.14	538.45	233.12	277.04	420.84	261.59	353.48	655.26
TN 44	69.20	94.02	107.44	112.23	122.79	147.04	177.88	195.81	92.51	98.53	145.89	110.83	135.02	239.38
TX 45	109.57	155.65	190.12	206.81	219.17	276.00	333.90	367.55	163.69	171.67	257.85	196.22	240.99	449.34
UT 46	0.17	0.22	0.27	0.34	0.40	0.59	0.71	0.79	0.26	0.36	0.64	0.23	0.44	0.96
VT 47	2.57	2.73	3.15	3.54	3.85	4.96	6.01	6.61	2.82	3.20	5.08	3.25	4.24	8.08
VA 48	30.48	33.68	46.52	52.30	59.21	78.78	95.30	104.91	40.76	48.02	77.10	48.01	65.11	128.26
WA 49	2.90	3.14	3.68	4.31	5.04	6.84	8.28	9.11	3.37	4.25	6.93	3.80	5.54	11.14
HI 51	52.33	60.60	64.32	63.59	72.75	100.63	121.74	134.01	53.80	57.48	96.69	66.39	79.99	163.83

VOC CAT 78

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
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VOC CAT 79

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
CA 5	0.13	0.16	0.20	0.24	0.28	0.36	0.44	0.51	0.19	0.25	0.41	0.21	0.29	0.60
CT 7	0.92	1.18	1.36	1.56	1.78	2.10	2.54	2.95	1.26	1.53	2.31	1.40	1.89	3.49
DC 9	0.10	0.12	0.14	0.17	0.19	0.24	0.29	0.33	0.14	0.17	0.29	0.15	0.20	0.40
IL 14	8.83	9.63	11.29	12.94	14.59	18.11	21.83	25.33	10.48	12.72	20.17	11.67	15.51	30.07
IN 15	0.49	0.55	0.61	0.70	0.76	0.88	1.06	1.23	0.59	0.69	1.03	0.63	0.81	1.46
KS 17	0.37	0.46	0.55	0.66	0.77	1.05	1.27	1.48	0.52	0.70	1.24	0.57	0.82	1.75
ID 21	7.24	9.67	11.67	13.73	15.74	20.18	24.34	28.30	11.10	14.21	23.43	12.06	16.74	33.53
HA 22	0.63	0.75	0.90	1.07	1.14	1.33	1.66	1.93	0.84	0.99	1.53	0.93	1.22	2.29
ID 26	2.46	3.02	3.67	4.26	4.85	6.05	7.30	8.49	3.51	4.42	7.13	3.79	5.15	10.05
NJ 31	0.08	0.08	0.09	0.10	0.11	0.13	0.15	0.18	0.08	0.09	0.13	0.10	0.11	0.21
NC 34	0.13	0.19	0.24	0.28	0.32	0.42	0.50	0.59	0.23	0.30	0.49	0.24	0.34	0.70
OH 36	3.85	4.30	4.84	5.54	6.11	7.26	8.76	10.18	4.65	5.57	8.51	5.00	6.50	12.05
OR 33	0.70	0.92	1.11	1.34	1.52	1.97	2.37	2.76	1.06	1.36	2.23	1.14	1.62	3.27

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10³*3 TONS)

ANL/ARAH/INDVOC 11/22/85

VOC CAT 79

	REFERENCE CASE								LOW CASE			HIGH CASE			
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030	
PA	39	11.87	14.46	17.18	19.23	22.05	23.40	34.25	39.81	16.28	19.85	32.81	17.76	23.45	47.17
RI	41	0.73	0.82	0.96	1.12	1.23	1.46	1.76	2.04	0.90	1.07	1.63	0.99	1.31	2.42
SC	42	5.60	8.43	10.57	12.54	16.41	18.61	22.44	26.09	10.13	15.18	21.81	10.93	15.33	30.91
TN	44	15.22	21.46	25.64	29.79	33.80	42.57	51.34	59.63	24.46	30.92	50.21	26.51	35.94	70.72
TX	45	0.11	0.13	0.16	0.20	0.22	0.28	0.33	0.39	0.15	0.20	0.32	0.17	0.24	0.46
VA	43	0.52	0.63	0.81	0.96	1.09	1.37	1.65	1.91	0.74	0.92	1.45	0.83	1.16	2.27
HI.	51	4.93	6.04	7.29	8.62	9.78	12.30	14.23	17.24	6.89	8.66	14.00	7.53	10.40	20.43

VOC CAT 80

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030	
CA	5	0.04	0.05	0.05	0.06	0.07	0.09	0.11	0.12	0.05	0.07	0.11	0.06	0.03	0.15
CT	7	0.23	0.32	0.36	0.42	0.48	0.60	0.72	0.83	0.34	0.43	0.68	0.37	0.51	0.99
DC	9	0.05	0.06	0.07	0.08	0.08	0.10	0.12	0.14	0.06	0.08	0.12	0.07	0.09	0.17
IL	14	0.57	0.59	0.65	0.73	0.79	0.93	1.12	1.30	0.62	0.72	1.07	0.67	0.84	1.54
IN	15	0.13	0.19	0.23	0.28	0.30	0.33	0.40	0.47	0.21	0.25	0.36	0.24	0.32	0.55
KS	17	0.06	0.06	0.07	0.09	0.10	0.13	0.16	0.18	0.07	0.09	0.15	0.07	0.11	0.21
KY	18	0.03	0.03	0.04	0.05	0.05	0.07	0.08	0.10	0.04	0.05	0.08	0.04	0.06	0.11
ID	21	1.04	1.28	1.43	1.74	1.94	2.40	2.83	3.35	1.44	1.78	2.82	1.53	2.06	3.96
IA	22	0.02	0.03	0.03	0.04	0.04	0.05	0.06	0.07	0.03	0.04	0.06	0.03	0.04	0.03
MI	24	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.01	0.03
MO	26	4.41	5.01	5.87	6.76	7.52	9.02	10.84	12.62	5.69	6.94	10.72	6.03	7.97	14.91
MI	30	0.07	0.09	0.10	0.11	0.14	0.18	0.21	0.25	0.09	0.12	0.20	0.10	0.15	0.29
NC	34	0.02	0.03	0.04	0.05	0.05	0.06	0.08	0.09	0.04	0.05	0.08	0.04	0.05	0.10
OH	36	0.12	0.13	0.14	0.16	0.18	0.22	0.26	0.30	0.14	0.17	0.26	0.14	0.19	0.36
PA	39	0.23	0.25	0.23	0.32	0.35	0.42	0.51	0.59	0.27	0.32	0.50	0.29	0.37	0.70
SC	42	13.33	18.42	22.15	26.11	29.30	36.33	43.66	50.84	21.58	27.17	43.13	22.77	31.07	60.08
VA	43	0.04	0.05	0.06	0.07	0.08	0.10	0.12	0.14	0.06	0.07	0.12	0.06	0.09	0.17
HI.	51	5.03	4.95	5.31	5.24	6.13	8.42	10.12	11.79	4.60	4.96	8.75	5.46	6.50	13.93

VOC CAT 81

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030	
CA	5	0.25	0.30	0.38	0.46	0.54	0.71	0.85	0.99	0.36	0.48	0.81	0.39	0.57	1.18
IL	14	0.51	0.56	0.62	0.69	0.75	0.89	1.07	1.24	0.59	0.67	1.00	0.64	0.80	1.47
IN	15	0.21	0.25	0.27	0.30	0.34	0.41	0.49	0.57	0.26	0.31	0.49	0.28	0.36	0.67
KS	17	0.03	0.04	0.04	0.05	0.06	0.07	0.09	0.10	0.04	0.05	0.09	0.05	0.06	0.12
KY	18	0.11	0.13	0.16	0.19	0.21	0.26	0.32	0.37	0.15	0.19	0.29	0.16	0.22	0.44
ID	21	0.13	0.17	0.21	0.24	0.27	0.34	0.41	0.48	0.19	0.24	0.40	0.21	0.29	0.57
IA	22	0.21	0.28	0.33	0.39	0.43	0.53	0.64	0.74	0.31	0.37	0.59	0.34	0.45	0.87
MI	24	0.24	0.30	0.34	0.40	0.45	0.55	0.66	0.77	0.33	0.40	0.64	0.35	0.48	0.91
MO	26	0.02	0.03	0.03	0.04	0.04	0.05	0.06	0.07	0.03	0.04	0.06	0.03	0.04	0.03
NC	34	0.39	0.55	0.68	0.79	0.90	1.17	1.40	1.63	0.65	0.83	1.37	0.70	0.96	1.93
OH	36	0.24	0.27	0.29	0.32	0.35	0.40	0.49	0.57	0.28	0.32	0.47	0.30	0.37	0.67

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAH/INDVOC 11/22/85

VOC CAT 81

	REFERENCE CASE								LOW CASE			HIGH CASE			
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030	
PA	39	2.22	2.65	3.01	3.37	3.80	4.75	5.72	6.65	2.87	3.45	5.53	3.10	4.04	7.87
RI	41	0.08	0.03	0.10	0.11	0.12	0.15	0.18	0.20	0.09	0.11	0.16	0.10	0.13	0.24
SC	42	1.62	2.40	2.95	3.44	3.93	5.05	6.07	7.06	2.83	3.59	5.23	3.05	4.17	8.35
TX	45	0.22	0.31	0.37	0.44	0.51	0.65	0.78	0.91	0.35	0.46	0.75	0.38	0.54	1.03
VA	48	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.01	0.02	0.03	0.02	0.02	0.04
WA	49	0.04	0.04	0.05	0.05	0.06	0.07	0.08	0.10	0.05	0.05	0.03	0.05	0.06	0.11
HI	51	1.12	1.32	1.54	1.80	2.02	2.47	2.97	3.45	1.48	1.81	2.83	1.59	2.14	4.08

VOC CAT 82

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030	
CA	5	15.13	19.91	24.12	28.23	32.27	41.28	49.60	57.47	23.18	29.79	42.84	24.28	34.30	69.00
CT	7	0.34	0.45	0.52	0.60	0.70	0.91	1.10	1.27	0.49	0.63	1.05	0.53	0.75	1.51
DE	8	0.00	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.01	0.01	0.02	0.01	0.02	0.03
IL	14	75.94	90.18	102.63	114.94	128.25	158.58	190.53	220.78	97.49	116.26	182.95	105.87	136.31	261.23
IN	15	0.94	1.17	1.42	1.67	1.85	2.22	2.66	3.09	1.30	1.62	2.47	1.47	1.97	3.65
IA	16	1.66	2.05	2.37	2.72	3.07	3.89	4.67	5.42	2.27	2.84	4.62	2.44	3.26	6.41
KS	17	0.87	1.10	1.29	1.53	1.77	2.39	2.87	3.33	1.24	1.64	2.85	1.33	1.88	3.94
KY	18	8.69	11.14	13.34	16.44	19.15	25.37	30.48	35.31	13.25	17.46	29.46	14.27	20.35	41.78
MD	21	0.25	0.33	0.39	0.45	0.50	0.62	0.75	0.86	0.37	0.46	0.72	0.40	0.53	1.02
MA	22	0.74	0.95	1.13	1.33	1.42	1.73	2.08	2.41	1.06	1.26	1.97	1.16	1.51	2.86
MI	23	0.50	0.62	0.66	0.76	0.87	1.14	1.37	1.59	0.66	0.84	1.41	0.69	0.93	1.88
MI	24	0.81	1.09	1.27	1.43	1.66	2.06	2.47	2.86	1.22	1.52	2.42	1.31	1.76	3.39
MO	26	7.54	9.22	10.52	12.11	13.59	16.84	20.24	23.45	10.18	12.50	20.03	10.86	14.45	27.75
NE	28	5.25	6.25	7.07	8.17	9.21	11.48	13.80	15.99	6.95	8.65	14.05	7.29	9.78	18.92
NH	30	0.32	0.43	0.68	0.96	1.22	1.79	2.16	2.50	0.58	0.99	1.94	0.70	1.30	2.96
NJ	31	1.19	1.33	1.76	2.02	2.30	2.95	3.54	4.10	1.58	1.97	3.24	1.82	2.44	4.83
NY	33	1.06	1.26	1.42	1.61	1.79	2.20	2.65	3.07	1.37	1.65	2.59	1.46	1.91	3.63
NC	34	15.92	26.53	36.33	43.48	50.71	65.18	78.31	90.74	32.42	40.93	65.74	37.48	53.89	107.37
OH	35	42.48	49.37	56.02	63.83	71.05	87.02	104.55	121.15	54.19	66.31	103.80	57.79	75.51	143.35
OK	37	0.60	0.75	0.92	1.11	1.30	1.75	2.10	2.43	0.89	1.21	2.07	0.95	1.33	2.87
OR	38	4.74	4.73	6.82	8.83	10.72	14.84	17.83	20.66	6.39	9.46	17.04	7.04	11.39	24.45
PA	39	4.01	4.71	5.41	5.85	6.54	7.87	9.46	10.96	5.06	5.83	8.97	5.58	6.95	12.97
RI	41	1.27	1.60	1.82	2.03	2.25	2.61	3.14	3.63	1.71	1.99	2.98	1.88	2.39	4.30
SC	42	6.07	9.36	11.53	13.53	15.44	19.39	23.90	27.69	11.17	14.35	23.57	11.94	16.41	32.76
TN	44	4.59	6.23	7.19	8.24	9.19	11.32	13.60	15.76	6.93	8.52	13.41	7.41	9.77	18.64
TX	45	0.16	0.23	0.28	0.33	0.38	0.49	0.53	0.68	0.27	0.35	0.57	0.29	0.41	0.80
VT	47	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
VA	48	9.09	12.25	14.25	16.56	18.54	22.82	27.42	31.77	13.77	16.91	26.55	14.70	19.70	37.59
WA	49	0.85	1.00	1.09	1.22	1.33	1.57	1.88	2.18	1.05	1.21	1.83	1.13	1.41	2.58
HI	51	1.55	1.91	2.21	2.56	2.87	3.53	4.24	4.92	2.13	2.61	4.10	2.29	3.06	5.82

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAM/INDVOC 11/22/85

VOC CAT 83

	REFERENCE CASE								LOW CASE			HIGH CASE		
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
NY 33	0.65	0.61	0.73	0.84	0.94	1.15	1.32	1.41	0.61	0.75	1.04	0.76	1.02	1.67
OK 37	128.13	139.47	171.62	197.61	220.33	273.96	316.44	336.72	152.99	185.49	254.64	180.00	233.00	399.18
PA 39	1.60	1.59	1.72	1.96	2.18	2.55	2.95	3.14	1.61	1.93	2.53	1.80	2.35	3.72

VOC CAT 84

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	0.97	1.10	1.33	1.43	1.62	1.95	2.22	2.43	1.26	1.44	1.83	1.37	1.71	2.84
AZ 3	0.36	0.49	0.62	0.71	0.81	1.00	1.14	1.25	0.59	0.73	0.98	0.63	0.85	1.46
AR 4	0.14	0.16	0.19	0.21	0.24	0.28	0.32	0.35	0.18	0.22	0.27	0.20	0.25	0.40
CA 5	1.66	1.82	2.20	2.46	2.72	3.21	3.65	4.00	2.09	2.46	3.11	2.26	2.86	4.68
CO 6	0.34	0.43	0.53	0.60	0.67	0.82	0.93	1.02	0.50	0.61	0.80	0.54	0.70	1.20
CT 7	0.43	0.51	0.63	0.73	0.79	0.89	1.01	1.11	0.60	0.71	0.88	0.65	0.83	1.30
DE 8	0.14	0.16	0.17	0.19	0.20	0.24	0.27	0.30	0.16	0.18	0.23	0.18	0.21	0.35
DC 9	0.03	0.03	0.03	0.04	0.04	0.05	0.05	0.06	0.03	0.04	0.05	0.04	0.04	0.07
FL 10	0.67	0.81	0.97	1.10	1.21	1.46	1.66	1.82	0.93	1.11	1.44	1.00	1.27	2.13
GA 11	2.11	2.56	3.04	3.42	3.83	4.66	5.29	5.79	2.93	3.50	4.50	3.11	4.02	6.78
IL 14	1.81	1.94	2.23	2.41	2.61	3.03	3.45	3.77	2.12	2.35	2.94	2.29	2.74	4.42
IN 15	1.22	1.36	1.56	1.71	1.84	2.10	2.39	2.62	1.48	1.63	2.03	1.60	1.93	3.06
IA 16	1.26	1.31	1.51	1.65	1.77	2.03	2.30	2.52	1.44	1.61	1.97	1.55	1.86	2.95
KS 17	0.45	0.51	0.61	0.68	0.75	0.91	1.03	1.13	0.53	0.68	0.89	0.62	0.79	1.33
KY 18	0.20	0.24	0.26	0.29	0.32	0.40	0.46	0.52	0.21	0.27	0.35	0.18	0.26	0.40
LA 19	0.54	0.56	0.65	0.72	0.79	0.94	1.06	1.16	0.63	0.72	0.92	0.67	0.83	1.36
ME 20	0.10	0.11	0.13	0.15	0.16	0.18	0.21	0.23	0.13	0.15	0.18	0.14	0.17	0.26
MD 21	0.30	0.35	0.39	0.43	0.47	0.57	0.65	0.71	0.38	0.44	0.58	0.40	0.50	0.83
MA 22	0.75	0.86	1.03	1.16	1.22	1.34	1.53	1.67	0.98	1.10	1.35	1.06	1.28	1.95
MI 23	1.22	1.30	1.44	1.54	1.65	1.91	2.16	2.37	1.35	1.47	1.79	1.48	1.74	2.77
MN 24	0.48	0.55	0.65	0.74	0.81	0.99	1.12	1.23	0.63	0.75	0.98	0.67	0.86	1.44
MS 25	0.48	0.53	0.61	0.67	0.72	0.84	0.95	1.05	0.59	0.65	0.82	0.63	0.75	1.22
MO 26	1.20	1.34	1.54	1.73	1.87	2.18	2.47	2.71	1.48	1.71	2.14	1.58	1.97	3.17
MT 27	0.40	0.33	0.47	0.52	0.57	0.66	0.75	0.82	0.46	0.52	0.65	0.49	0.60	0.95
NE 28	0.19	0.21	0.25	0.28	0.29	0.31	0.36	0.39	0.24	0.26	0.30	0.26	0.30	0.46
NV 29	0.13	0.22	0.23	0.32	0.37	0.47	0.53	0.58	0.27	0.36	0.43	0.28	0.39	0.68
NH 30	0.13	0.15	0.18	0.21	0.24	0.29	0.33	0.37	0.18	0.22	0.29	0.19	0.26	0.43
NJ 31	1.21	1.47	1.73	1.90	2.07	2.43	2.75	3.02	1.67	1.90	2.38	1.77	2.18	3.53
NH 32	0.31	0.38	0.46	0.52	0.58	0.71	0.80	0.88	0.44	0.53	0.70	0.47	0.61	1.03
NY 33	1.34	1.46	1.68	1.84	2.00	2.33	2.65	2.90	1.62	1.83	2.30	1.72	2.10	3.39
NC 34	0.73	0.89	1.03	1.15	1.27	1.54	1.75	1.92	0.99	1.17	1.54	1.06	1.34	2.24
ND 35	0.48	0.58	0.70	0.77	0.81	0.87	0.99	1.08	0.66	0.71	0.80	0.72	0.85	1.27
OH 36	2.84	2.94	3.34	3.70	3.99	4.60	5.22	5.72	3.16	3.60	4.46	3.42	4.19	6.69
OK 37	0.78	0.83	0.93	1.07	1.17	1.38	1.57	1.72	0.95	1.07	1.36	1.01	1.23	2.01
OR 38	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.04
PA 39	1.09	2.05	2.30	2.50	2.70	3.12	3.54	3.88	2.20	2.46	3.05	2.35	2.84	4.54
RI 41	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.05
SC 42	0.25	0.30	0.36	0.40	0.45	0.54	0.62	0.68	0.34	0.41	0.54	0.37	0.47	0.79

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAI/INDVOC 11/22/85

VOC CAT 84

	REFERENCE CASE							LOW CASE			HIGH CASE			
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
SD 43	0.15	0.17	0.19	0.21	0.22	0.24	0.27	0.30	0.13	0.20	0.23	0.19	0.23	0.35
TH 44	1.71	2.07	2.35	2.61	2.83	3.34	3.79	4.15	2.26	2.54	3.19	2.44	2.98	4.86
TX 45	2.58	3.09	3.63	4.03	4.46	5.34	6.06	6.63	3.50	4.12	5.30	3.72	4.69	7.76
UT 46	0.30	0.37	0.47	0.54	0.60	0.73	0.83	0.91	0.45	0.54	0.70	0.48	0.63	1.06
VT 47	0.06	0.09	0.08	0.03	0.09	0.10	0.11	0.13	0.07	0.03	0.10	0.08	0.09	0.15
VA 48	0.42	0.51	0.60	0.65	0.73	0.87	0.99	1.08	0.53	0.63	0.83	0.62	0.76	1.26
WA 49	0.19	0.21	0.24	0.27	0.29	0.34	0.39	0.43	0.24	0.27	0.34	0.25	0.31	0.50
WV 50	0.93	0.97	1.14	1.26	1.37	1.64	1.85	2.03	1.10	1.23	1.64	1.17	1.44	2.38
WI 51	0.49	0.53	0.58	0.62	0.67	0.78	0.88	0.96	0.55	0.60	0.75	0.60	0.70	1.13
WY 52	0.50	0.59	0.70	0.81	0.89	1.02	1.16	1.27	0.69	0.83	1.01	0.72	0.94	1.43

VOC CAT 85

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	2.35	2.90	3.53	4.05	4.52	5.55	6.45	6.98	3.29	3.97	5.42	3.67	4.85	8.27
AZ 3	0.10	0.13	0.16	0.17	0.20	0.28	0.32	0.35	0.14	0.16	0.24	0.17	0.22	0.41
AR 4	1.21	1.34	1.71	1.96	2.15	2.67	3.10	3.36	1.53	1.80	2.45	1.78	2.31	3.93
CA 5	15.42	18.21	22.27	24.23	27.03	34.06	39.57	42.80	19.94	22.94	32.23	23.11	29.04	50.74
CO 6	1.31	1.68	2.35	2.93	3.72	5.63	6.54	7.07	2.05	3.10	5.38	2.45	3.99	8.38
CT 7	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.03	0.03	0.05	0.03	0.04	0.03
DE 8	0.02	0.02	0.03	0.03	0.04	0.04	0.05	0.06	0.02	0.03	0.04	0.03	0.04	0.07
FL 10	1.67	1.94	2.25	2.55	2.85	3.45	4.01	4.34	2.14	2.56	3.46	2.34	3.06	5.14
GA 11	3.94	4.65	5.54	6.36	7.13	8.80	10.22	11.06	5.19	6.29	8.60	5.74	7.65	13.11
ID 13	1.51	1.52	1.93	2.14	2.32	2.73	3.17	3.43	1.74	1.93	2.62	2.00	2.49	4.06
IL 14	1.12	1.09	1.35	1.53	1.73	2.17	2.52	2.72	1.19	1.45	2.03	1.40	1.85	3.23
IN 15	1.19	1.35	1.77	2.05	2.23	2.61	3.03	3.28	1.53	1.80	2.32	1.84	2.39	3.83
IA 16	0.39	0.33	0.46	0.52	0.58	0.72	0.84	0.90	0.42	0.50	0.70	0.48	0.62	1.07
KS 17	0.25	0.27	0.34	0.39	0.44	0.56	0.65	0.70	0.31	0.33	0.54	0.35	0.47	0.83
KY 18	2.39	2.83	3.47	4.02	4.56	5.72	6.64	7.18	3.27	4.01	5.55	3.60	4.89	8.52
LA 19	10.22	10.26	13.04	14.90	16.15	19.41	22.51	24.39	12.29	14.40	19.09	13.53	17.33	28.91
ME 20	1.04	1.24	1.51	1.69	1.86	2.33	2.71	2.93	1.35	1.60	2.23	1.57	2.00	3.47
MD 21	0.52	0.54	0.70	0.79	0.90	1.18	1.37	1.43	0.61	0.72	1.03	0.73	0.97	1.76
MA 22	29.09	30.75	36.13	40.26	42.91	51.23	59.51	64.37	32.77	36.53	47.84	37.53	46.03	76.31
MI 23	2.72	3.03	3.49	3.96	4.53	5.84	6.78	7.34	3.17	3.90	5.60	3.62	4.86	8.70
MI 24	0.26	0.31	0.37	0.42	0.47	0.58	0.67	0.73	0.34	0.40	0.54	0.39	0.50	0.86
MS 25	12.64	15.62	18.57	21.20	23.70	29.07	33.76	36.53	17.54	21.14	28.61	19.26	25.43	43.30
MO 26	0.31	0.34	0.41	0.48	0.54	0.69	0.80	0.87	0.38	0.47	0.67	0.43	0.53	1.03
MT 27	0.57	0.55	0.71	0.80	0.87	1.03	1.20	1.30	0.65	0.75	1.00	0.74	0.93	1.56
NE 28	0.57	0.64	0.74	0.83	0.94	1.19	1.38	1.49	0.71	0.87	1.23	0.76	1.01	1.77
NH 29	0.03	0.10	0.14	0.17	0.22	0.33	0.38	0.41	0.12	0.17	0.28	0.15	0.23	0.48
NJ 31	4.91	5.85	6.73	7.40	8.28	10.07	11.70	12.65	6.11	7.04	9.70	6.98	8.89	15.00
NH 32	3.03	3.34	4.35	4.86	6.03	9.21	10.70	11.58	3.80	4.69	7.81	4.54	6.47	13.73
NY 33	2.94	3.12	3.75	4.25	4.83	6.20	7.21	7.80	3.45	4.27	6.14	3.89	5.18	9.24
NC 34	2.67	3.41	4.26	4.87	5.51	7.02	8.16	8.82	3.90	4.78	6.73	4.42	5.92	10.46
ND 35	0.04	0.05	0.05	0.06	0.07	0.08	0.09	0.10	0.05	0.06	0.08	0.05	0.07	0.12

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAH/INDVOC 11/22/85

VOC CAT 25

	REFERENCE CASE								LOW CASE			HIGH CASE		
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
OH 35	2.19	2.29	2.75	3.10	3.44	4.19	4.85	5.26	2.47	2.92	3.94	2.86	3.69	6.23
OK 37	1.60	1.80	2.05	2.33	2.64	3.33	3.87	4.19	1.93	2.43	3.47	2.14	2.83	4.96
OR 38	6.55	6.91	8.73	9.72	10.52	12.41	14.42	15.60	7.23	9.01	11.95	9.06	11.29	18.49
PA 39	1.09	1.04	1.33	1.43	1.60	2.01	2.39	2.53	1.16	1.33	1.85	1.33	1.72	3.00
RI 41	0.04	0.04	0.04	0.04	0.05	0.05	0.06	0.07	0.04	0.04	0.05	0.04	0.05	0.08
SC 42	1.99	2.34	2.94	3.35	3.80	4.82	5.50	6.06	2.66	3.21	4.46	3.05	4.03	7.13
SD 43	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01
TH 44	12.03	13.99	16.37	18.30	20.05	23.85	27.70	29.97	15.16	17.56	23.10	16.98	21.51	35.52
TX 45	50.46	56.20	67.64	80.46	90.47	112.63	130.90	141.60	63.84	79.67	111.54	72.26	97.04	167.85
UT 46	0.74	0.73	0.93	1.11	1.37	1.89	2.20	2.33	0.85	1.17	1.78	0.97	1.47	2.82
VT 47	0.05	0.05	0.07	0.09	0.09	0.11	0.13	0.14	0.05	0.07	0.10	0.07	0.09	0.17
VA 48	0.90	1.07	1.31	1.48	1.66	2.08	2.41	2.61	1.18	1.40	1.93	1.36	1.78	3.09
WA 49	7.27	7.51	9.36	10.20	12.14	15.00	17.43	18.85	8.82	10.84	14.97	9.71	13.02	22.35
WV 50	0.77	0.63	0.29	1.02	1.16	1.46	1.70	1.86	0.78	0.95	1.33	0.92	1.24	2.18
WI 51	1.31	2.13	2.62	3.00	3.33	4.25	4.94	5.35	2.43	2.96	4.12	2.71	3.63	6.34
WY 52	0.30	0.33	0.37	0.41	0.46	0.55	0.64	0.70	0.34	0.40	0.54	0.38	0.49	0.82

VOC CAT 86

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
CA 5	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.07	0.03	0.04	0.05	0.03	0.04	0.03
IL 14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MD 21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
MA 22	0.34	0.35	0.41	0.47	0.50	0.59	0.69	0.74	0.33	0.43	0.57	0.43	0.53	0.87
MI 24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MO 25	0.45	0.43	0.54	0.60	0.67	0.72	0.95	1.04	0.49	0.53	0.80	0.55	0.71	1.22
NJ 31	1.29	1.59	2.02	2.34	2.70	3.49	4.09	4.41	1.86	2.37	3.53	2.10	2.89	5.13
OH 35	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01
TH 44	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
TX 45	1.25	1.95	2.43	2.66	3.19	3.93	4.65	5.02	2.25	2.81	3.93	2.54	3.42	5.89
WA 49	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01
WI 51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VOC CAT 87

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01
AZ 3	0.30	0.33	0.39	0.40	0.42	0.49	0.55	0.63	0.35	0.35	0.43	0.39	0.46	0.78
AR 4	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.02
CA 5	7.29	9.02	9.41	8.96	9.19	10.69	12.15	13.63	8.93	8.26	9.82	9.41	9.95	16.78
CO 6	0.57	0.61	0.67	0.65	0.67	0.75	0.85	0.95	0.61	0.57	0.66	0.67	0.72	1.17
CT 7	0.03	0.03	0.04	0.04	0.04	0.04	0.05	0.05	0.03	0.03	0.04	0.04	0.04	0.06
DC 9	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
FL 10	0.46	0.48	0.52	0.51	0.52	0.53	0.66	0.74	0.48	0.45	0.52	0.52	0.57	0.91

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAM/INDVOC 11/22/85

VOC CAT 87

	REFERENCE CASE								LOW CASE			HIGH CASE		
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
GA 11	0.20	0.21	0.23	0.23	0.25	0.29	0.33	0.37	0.21	0.22	0.26	0.23	0.27	0.45
IL 14	1.67	1.53	1.59	1.51	1.51	1.61	1.83	2.05	1.44	1.26	1.40	1.59	1.64	2.53
IN 15	7.68	7.25	7.53	7.24	7.20	7.53	8.56	9.60	6.80	5.91	6.54	7.53	7.79	11.82
IA 16	0.06	0.05	0.05	0.05	0.05	0.05	0.06	0.07	0.05	0.04	0.05	0.05	0.05	0.03
KS 17	42.70	41.48	44.19	43.81	44.69	49.54	55.29	63.16	40.33	37.65	43.54	44.19	48.37	77.76
KY 18	0.57	0.49	0.49	0.46	0.46	0.50	0.56	0.63	0.45	0.39	0.43	0.49	0.50	0.78
LA 19	14.10	12.17	12.91	12.92	14.04	18.13	20.60	23.12	12.20	12.66	16.87	12.91	15.19	28.46
ME 20	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.03
MD 21	0.20	0.20	0.21	0.20	0.20	0.22	0.25	0.28	0.19	0.17	0.20	0.21	0.22	0.35
MA 22	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.03
MI 23	0.08	0.07	0.07	0.07	0.07	0.07	0.08	0.09	0.07	0.06	0.06	0.07	0.07	0.11
MI 24	0.17	0.16	0.13	0.17	0.18	0.20	0.22	0.25	0.16	0.15	0.18	0.13	0.19	0.31
MO 26	0.03	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.03	0.03	0.04
MT 27	0.26	0.24	0.23	0.24	0.25	0.23	0.32	0.36	0.24	0.23	0.27	0.24	0.27	0.44
NE 23	0.14	0.13	0.14	0.14	0.13	0.13	0.15	0.17	0.13	0.11	0.11	0.14	0.14	0.21
NV 29	0.04	0.04	0.05	0.05	0.05	0.06	0.06	0.07	0.04	0.04	0.05	0.05	0.05	0.09
NI 30	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
NJ 31	0.48	0.47	0.50	0.47	0.49	0.51	0.58	0.66	0.46	0.41	0.46	0.50	0.52	0.81
NI 32	19.28	17.36	13.89	18.49	19.31	22.51	25.53	28.70	17.40	16.74	20.09	18.89	20.91	35.33
NY 33	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.04	0.03	0.04	0.04	0.04	0.06
NC 34	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.04
ND 35	0.04	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03
OH 36	0.27	0.24	0.24	0.24	0.25	0.28	0.32	0.22	0.20	0.22	0.24	0.26	0.39	
OK 37	0.72	0.66	0.67	0.63	0.75	0.93	1.12	1.25	0.65	0.69	0.92	0.67	0.81	1.54
PA 39	0.12	0.11	0.11	0.10	0.10	0.11	0.12	0.14	0.10	0.09	0.10	0.11	0.11	0.17
SC 42	0.05	0.05	0.05	0.05	0.05	0.06	0.07	0.07	0.05	0.04	0.05	0.05	0.06	0.09
TN 44	1.43	1.43	1.54	1.43	1.43	1.60	1.82	2.04	1.39	1.23	1.38	1.54	1.61	2.51
TX 45	33.44	27.01	30.58	31.11	32.80	37.73	42.88	48.11	27.58	26.72	31.18	30.58	35.51	59.23
UT 46	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02
VT 47	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.01	0.01	0.02	0.01	0.02	0.04
VA 43	0.03	0.08	0.03	0.03	0.03	0.09	0.10	0.12	0.08	0.07	0.08	0.03	0.09	0.14
WA 49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
WI 51	0.32	0.29	0.30	0.28	0.28	0.30	0.34	0.39	0.27	0.23	0.26	0.30	0.30	0.49
WY 52	0.47	0.44	0.48	0.48	0.49	0.52	0.59	0.66	0.45	0.43	0.47	0.43	0.53	0.82

VOC CAT 28

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	3.54	4.10	4.77	5.53	6.52	8.92	10.85	12.54	4.57	6.01	10.70	4.92	7.05	15.08
AZ 3	0.10	0.13	0.15	0.16	0.19	0.26	0.32	0.37	0.13	0.16	0.27	0.15	0.21	0.44
AR 4	0.24	0.25	0.31	0.35	0.38	0.47	0.57	0.66	0.23	0.31	0.49	0.32	0.41	0.80
CA 5	7.46	8.07	9.00	11.25	12.77	16.33	19.91	23.03	9.01	11.09	18.52	10.11	13.80	27.68
CO 6	1.42	1.74	2.00	2.26	2.53	3.09	3.75	4.34	1.85	2.22	3.51	2.06	2.74	5.21
CT 7	0.10	0.12	0.15	0.17	0.18	0.21	0.26	0.30	0.13	0.16	0.25	0.15	0.20	0.36
DE 8	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.00	0.01	0.01	0.01	0.01	0.02

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAH/INDVOC 11/22/85

VOC CAT 88

	REFERENCE CASE								LOW CASE			HIGH CASE		
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
FL 10	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.01
GA 11	0.20	0.25	0.32	0.36	0.42	0.55	0.67	0.77	0.28	0.35	0.59	0.33	0.45	0.93
ID 13	3.00	3.20	3.81	4.23	4.60	5.50	6.68	7.73	3.53	4.09	6.44	3.93	4.97	9.29
IL 14	0.06	0.07	0.08	0.09	0.10	0.13	0.16	0.18	0.07	0.09	0.15	0.08	0.11	0.22
IN 15	0.14	0.15	0.18	0.20	0.22	0.26	0.31	0.36	0.16	0.18	0.29	0.13	0.23	0.44
IA 16	0.04	0.04	0.05	0.05	0.06	0.07	0.09	0.10	0.04	0.05	0.03	0.05	0.06	0.11
KS 17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01
KY 18	0.25	0.28	0.35	0.39	0.43	0.54	0.65	0.75	0.31	0.36	0.57	0.36	0.47	0.91
LA 19	1.61	1.68	2.04	2.32	2.58	3.21	3.91	4.52	1.83	2.29	3.75	2.10	2.78	5.43
ME 20	0.65	0.71	0.85	0.95	1.04	1.20	1.46	1.69	0.78	0.91	1.43	0.88	1.12	2.03
ID 21	0.12	0.10	0.10	0.11	0.12	0.16	0.19	0.22	0.09	0.11	0.18	0.11	0.13	0.26
MA 22	0.03	0.03	0.04	0.04	0.05	0.05	0.06	0.07	0.04	0.04	0.05	0.04	0.05	0.09
MI 23	0.31	0.34	0.38	0.43	0.48	0.61	0.75	0.86	0.35	0.44	0.71	0.39	0.52	1.04
MI 24	0.23	0.27	0.33	0.36	0.40	0.52	0.63	0.73	0.30	0.34	0.57	0.34	0.44	0.88
MD 26	0.75	0.84	0.95	1.10	1.20	1.44	1.75	2.02	0.90	1.05	1.66	1.01	1.30	2.43
MT 27	1.10	1.03	1.31	1.46	1.57	1.85	2.25	2.60	1.20	1.38	2.12	1.35	1.70	3.13
ME 28	0.05	0.06	0.07	0.08	0.09	0.09	0.11	0.13	0.06	0.07	0.10	0.07	0.09	0.15
HI 31	0.02	0.02	0.02	0.02	0.03	0.04	0.04	0.05	0.02	0.02	0.04	0.02	0.03	0.06
HI 32	0.68	0.75	0.93	1.04	1.23	1.92	2.34	2.70	0.83	1.02	1.97	0.96	1.38	3.25
NY 33	0.03	0.09	0.10	0.11	0.12	0.16	0.19	0.22	0.09	0.11	0.19	0.10	0.13	0.26
NC 34	0.07	0.08	0.10	0.11	0.13	0.16	0.20	0.23	0.09	0.11	0.19	0.10	0.14	0.27
OH 36	0.07	0.07	0.08	0.09	0.10	0.12	0.15	0.17	0.08	0.09	0.14	0.09	0.11	0.20
OR 38	0.22	0.23	0.28	0.31	0.33	0.39	0.48	0.55	0.26	0.29	0.45	0.29	0.36	0.66
PA 39	0.26	0.23	0.33	0.33	0.44	0.53	0.70	0.81	0.31	0.39	0.63	0.34	0.48	0.98
SC 42	1.47	1.63	2.07	2.35	2.68	3.49	4.25	4.91	1.83	2.22	3.69	2.14	2.90	5.90
SD 43	1.15	1.28	1.47	1.65	1.73	1.93	2.35	2.71	1.34	1.49	2.17	1.52	1.87	3.26
TN 44	0.89	0.99	1.25	1.39	1.53	1.85	2.25	2.60	1.12	1.30	2.03	1.29	1.65	3.13
TX 45	9.69	10.86	13.27	15.22	16.92	21.07	25.62	29.62	12.13	14.89	24.16	13.70	18.29	35.60
UT 46	0.23	0.28	0.36	0.41	0.46	0.58	0.70	0.81	0.33	0.40	0.65	0.37	0.50	0.97
VA 48	0.16	0.18	0.22	0.25	0.29	0.33	0.46	0.53	0.20	0.24	0.40	0.23	0.31	0.63
WA 49	0.98	1.01	1.28	1.44	1.55	1.83	2.23	2.57	1.18	1.36	2.11	1.32	1.63	3.09
WV 50	0.39	0.41	0.51	0.58	0.66	0.85	1.04	1.21	0.45	0.54	0.90	0.53	0.71	1.45
WI 51	7.97	9.71	12.45	14.04	15.97	21.53	26.18	30.27	11.00	13.39	23.31	12.86	17.26	36.39
NY 52	1.33	1.89	1.83	2.01	2.16	2.52	3.06	3.54	1.67	1.89	2.69	1.69	2.33	4.25

VOC CAT 89

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
CT 7	0.02	0.02	0.03	0.03	0.04	0.05	0.06	0.06	0.02	0.03	0.05	0.03	0.04	0.07

VOC CAT 90

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	0.09	0.10	0.13	0.14	0.15	0.18	0.22	0.23	0.12	0.13	0.18	0.13	0.17	0.27

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAM/INDVOC 11/22/85

VOC CAT 90

	REFERENCE CASE								LOW CASE			HIGH CASE		
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AZ 3	0.03	0.05	0.03	0.10	0.12	0.15	0.18	0.19	0.07	0.10	0.15	0.08	0.13	0.23
AR 4	0.64	0.37	0.52	0.69	0.81	1.07	1.24	1.33	0.51	0.82	1.25	0.54	0.86	1.56
CA 5	1.14	1.31	1.63	1.91	2.16	2.63	3.13	3.35	1.55	1.89	2.66	1.75	2.31	3.94
CO 6	0.50	0.75	0.93	1.13	1.31	1.61	1.83	2.02	0.26	1.14	1.60	0.97	1.40	2.37
CT 7	0.78	0.82	0.99	1.16	1.32	1.61	1.87	2.01	0.84	1.03	1.41	1.03	1.41	2.36
DE 8	29.54	32.35	39.60	46.66	52.97	66.25	77.18	82.87	36.45	46.50	65.84	41.24	56.71	97.31
DC 9	0.76	0.84	1.04	1.18	1.31	1.66	1.93	2.07	0.93	1.21	1.73	1.03	1.41	2.43
FL 10	0.02	0.03	0.04	0.04	0.05	0.06	0.07	0.07	0.03	0.04	0.05	0.04	0.05	0.03
GA 11	0.03	0.04	0.04	0.05	0.06	0.07	0.05	0.09	0.04	0.04	0.06	0.05	0.06	0.10
IL 14	1.01	1.06	1.22	1.33	1.46	1.80	2.09	2.25	1.15	1.31	1.80	1.23	1.57	2.64
IN 15	0.23	0.27	0.32	0.37	0.41	0.47	0.55	0.59	0.29	0.34	0.45	0.34	0.43	0.70
IA 16	0.04	0.04	0.05	0.05	0.05	0.06	0.07	0.07	0.04	0.05	0.06	0.05	0.06	0.06
KS 17	0.06	0.07	0.08	0.09	0.11	0.14	0.16	0.17	0.08	0.10	0.14	0.08	0.11	0.20
KY 18	0.12	0.09	0.10	0.10	0.11	0.19	0.16	0.17	0.10	0.10	0.14	0.11	0.12	0.20
LA 19	0.25	0.27	0.34	0.39	0.43	0.53	0.61	0.66	0.31	0.37	0.52	0.35	0.46	0.77
HE 20	0.14	0.19	0.24	0.30	0.34	0.45	0.53	0.57	0.23	0.30	0.45	0.26	0.36	0.67
ID 21	5.24	4.88	6.02	6.54	7.36	9.35	10.90	11.70	5.28	6.01	8.57	6.27	7.83	13.74
IIA 22	4.95	5.75	7.15	8.05	8.81	10.74	12.51	13.43	6.35	7.26	9.76	7.44	9.43	15.77
III 23*	0.08	0.08	0.10	0.11	0.12	0.15	0.17	0.18	0.09	0.10	0.14	0.10	0.13	0.21
III 24	0.16	0.21	0.26	0.30	0.34	0.43	0.50	0.54	0.24	0.30	0.43	0.27	0.36	0.63
HS 25	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.01	0.02	0.02	0.01	0.02	0.03
MD 26	6.31	7.65	9.41	10.67	12.00	14.87	17.32	18.60	8.94	10.89	15.21	9.80	12.85	21.84
MT 27	0.12	0.11	0.13	0.15	0.16	0.20	0.24	0.25	0.13	0.15	0.21	0.14	0.17	0.30
IV 29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NJ 31	33.02	37.01	46.35	53.57	60.59	77.09	89.50	96.42	42.68	53.07	76.72	48.28	64.87	113.23
III 32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NY 33	0.47	0.68	0.82	0.93	1.07	1.41	1.64	1.76	0.73	0.76	0.92	0.65	1.15	2.07
NC 34	0.05	0.06	0.08	0.09	0.11	0.13	0.15	0.17	0.07	0.09	0.13	0.08	0.11	0.20
OII 36	6.93	5.94	7.03	8.15	9.09	11.22	13.07	14.03	6.82	8.32	11.47	7.32	9.73	16.43
OK 37	0.04	0.05	0.05	0.06	0.03	0.12	0.14	0.15	0.05	0.07	0.13	0.06	0.09	0.18
OR 38	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
PA 39	7.27	7.43	9.14	9.71	10.83	13.72	15.98	17.16	8.04	8.95	12.63	9.52	11.60	20.15
RI 41	0.09	0.11	0.13	0.15	0.17	0.21	0.24	0.26	0.12	0.14	0.20	0.13	0.18	0.31
SC 42	1.53	2.27	2.87	3.52	3.76	4.81	5.60	6.02	2.73	3.44	4.92	2.99	4.03	7.07
SD 43	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
TN 44	2.69	3.00	3.47	3.53	3.81	4.40	5.13	5.51	3.17	3.30	4.32	3.61	4.08	6.47
TX 45	6.74	7.30	9.79	11.62	12.95	15.74	18.33	19.68	9.14	11.43	15.70	10.19	13.86	23.11
UT 46	0.05	0.04	0.07	0.05	0.10	0.14	0.17	0.18	0.06	0.08	0.12	0.07	0.11	0.21
VA 48	0.62	0.70	0.85	0.94	1.04	1.26	1.46	1.57	0.78	0.90	1.22	0.88	1.12	1.85
WA 49	3.09	3.55	4.22	5.16	6.01	7.97	9.28	9.97	4.04	5.35	7.92	4.39	6.43	11.71
WV 50	0.83	0.90	1.13	1.23	1.35	1.67	1.95	2.09	1.07	1.25	1.74	1.17	1.44	2.46
HI 51	1.33	1.51	1.92	2.26	2.55	3.18	3.71	3.98	1.78	2.25	3.18	2.00	2.73	4.68
NY 52	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.02

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAM/INDVOC 11/22/85

VOC CAT 91

	REFERENCE CASE								LOW CASE			HIGH CASE		
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030

VOC CAT 92

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL	1	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.02	0.02	0.04	0.03	0.03	0.06
AZ	3	0.01	0.01	0.02	0.02	0.03	0.04	0.04	0.02	0.02	0.03	0.02	0.02	0.05
AR	4	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02
CA	5	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.01	0.01	0.02	0.02	0.04
FL	10	0.02	0.02	0.03	0.03	0.03	0.05	0.05	0.05	0.03	0.02	0.04	0.03	0.04
GA	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IL	14	0.09	0.03	0.04	0.04	0.04	0.06	0.06	0.07	0.03	0.03	0.05	0.04	0.05
IN	15	0.06	0.06	0.07	0.07	0.07	0.10	0.12	0.13	0.06	0.05	0.09	0.07	0.03
IA	16	0.04	0.03	0.04	0.03	0.03	0.05	0.06	0.06	0.03	0.03	0.04	0.04	0.08
KS	17	0.04	0.04	0.04	0.04	0.05	0.07	0.08	0.09	0.04	0.04	0.06	0.04	0.05
KY	18	0.02	0.01	0.02	0.02	0.02	0.03	0.03	0.04	0.02	0.01	0.02	0.02	0.04
ME	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
HA	22	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01
HO	26	0.14	0.14	0.17	0.15	0.17	0.24	0.27	0.30	0.15	0.12	0.20	0.17	0.19
NE	23	0.04	0.03	0.04	0.04	0.04	0.06	0.07	0.08	0.04	0.03	0.05	0.04	0.05
HV	29	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01
NC	34	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01
HD	35	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.02	0.01	0.02	0.02	0.04
OK	37	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01
SC	42	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.01
SD	43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TH	44	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.01	0.01	0.02	0.01	0.02
TX	45	0.03	0.03	0.03	0.03	0.03	0.05	0.05	0.06	0.03	0.02	0.04	0.03	0.07
UT	46	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.00	0.01
VA	48	0.03	0.03	0.03	0.03	0.03	0.05	0.05	0.06	0.03	0.02	0.04	0.03	0.07
NY	52	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.00	0.01

VOC CAT 93

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
MA	22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VOC CAT 94

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AZ	3	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01
AR	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO	6	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
CT	7	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAM/INDVOC 11/22/85

VOC CAT 94

	REFERENCE CASE								LOW CASE			HIGH CASE		
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
DC 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ID 13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IN 15	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01
IA 16	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
KS 17	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.03
KY 13	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
MD 21	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
MA 22	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
NV 29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NH 30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NJ 31	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.03	0.04	0.03	0.03	0.04	0.04	0.03
NM 32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NY 33	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
ND 35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OH 36	0.03	0.02	0.03	0.03	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.03	0.03	0.02
OK 37	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OR 38	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
PA 39	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02
RI 41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TX 45	0.09	0.09	0.12	0.12	0.11	0.09	0.09	0.09	0.11	0.10	0.03	0.12	0.11	0.09
UT 46	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
WA 49	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
NV 50	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01
NY 52	0.04	0.03	0.05	0.05	0.04	0.03	0.03	0.03	0.04	0.04	0.03	0.05	0.04	0.04

VOC CAT 95

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
CO 6	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
CT 7	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
IA 16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KS 17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MD 26	0.03	0.03	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.04	0.03	0.03
MT 27	0.02	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.02	0.02	0.01	0.02	0.02	0.02
NE 28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NH 32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TX 45	0.03	0.03	0.10	0.10	0.10	0.08	0.08	0.08	0.03	0.10	0.09	0.07	0.11	0.10
UT 46	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
WA 49	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
NY 52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAH/INDVOC 11/22/85

VOC CAT 96

		REFERENCE CASE							LOW CASE			HIGH CASE			
		1920	1925	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL	1	17.06	15.41	18.31	18.12	17.32	15.55	14.21	12.44	17.06	15.31	10.32	18.93	17.67	12.76
AZ	3	7.08	7.32	8.28	9.05	8.97	8.26	7.55	6.61	8.18	7.78	5.46	9.17	9.15	6.78
AR	4	10.68	9.67	11.66	11.80	11.23	9.96	9.11	7.97	10.83	10.05	6.77	12.05	11.46	8.18
CA	5	22.31	21.23	25.29	25.55	24.85	22.65	20.71	18.12	23.27	21.87	15.21	26.14	25.36	18.60
CO	6	5.77	5.60	6.85	7.12	7.12	6.32	6.24	5.46	6.31	6.24	4.57	7.08	7.26	5.60
CT	7	0.06	0.05	0.06	0.05	0.06	0.05	0.05	0.04	0.05	0.05	0.03	0.05	0.05	0.04
DE	8	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
FL	10	0.78	0.78	0.95	0.92	0.95	0.87	0.79	0.69	0.88	0.84	0.58	0.98	0.97	0.71
GA	11	2.13	1.93	2.25	2.20	2.07	1.81	1.65	1.45	2.11	1.83	1.20	2.33	2.11	1.45
ID	13	0.04	0.03	0.04	0.04	0.04	0.03	0.03	0.03	0.04	0.04	0.02	0.04	0.04	0.03
IL	14	2.26	1.70	1.92	1.87	1.77	1.57	1.44	1.26	1.75	1.53	1.03	1.99	1.80	1.29
IN	15	0.12	0.11	0.12	0.12	0.11	0.10	0.09	0.08	0.11	0.10	0.07	0.13	0.12	0.08
IA	16	3.37	2.61	2.93	2.84	2.65	2.29	2.09	1.83	2.72	2.35	1.55	3.03	2.70	1.88
KS	17	41.00	34.45	40.49	41.43	40.12	37.49	34.23	30.00	37.20	35.33	25.05	41.86	40.93	30.78
KY	18	3.30	2.78	3.26	3.24	3.13	2.85	2.61	2.28	3.02	2.76	1.90	3.37	3.19	2.34
LA	19	11.44	8.75	10.27	10.23	9.73	8.74	7.99	6.99	9.61	8.77	5.93	10.61	9.93	7.17
MD	21	1.18	0.98	1.07	1.02	0.98	0.88	0.80	0.70	1.00	0.87	0.59	1.10	1.00	0.72
MA	22	0.09	0.03	0.10	0.10	0.10	0.09	0.08	0.07	0.09	0.08	0.06	0.10	0.10	0.07
MI	23	9.61	8.42	9.04	8.24	8.50	7.80	7.13	6.24	8.27	7.44	5.18	9.35	8.67	6.40
MH	24	4.49	4.16	4.89	4.94	4.76	4.39	4.01	3.51	4.52	4.22	2.96	5.06	4.86	3.60
MS	25	23.86	21.24	25.18	24.54	23.58	21.02	19.22	16.82	23.21	20.55	13.90	26.03	24.06	17.26
MO	26	0.26	0.24	0.27	0.26	0.24	0.21	0.20	0.17	0.25	0.22	0.14	0.28	0.25	0.18
MT	27	1.37	1.03	1.27	1.29	1.23	1.09	1.00	0.87	1.22	1.11	0.75	1.32	1.25	0.89
NE	28	1.63	1.41	1.61	1.60	1.51	1.33	1.22	1.07	1.51	1.35	0.90	1.67	1.54	1.09
NV	29	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01
NH	30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NJ	31	0.05	0.04	0.05	0.05	0.05	0.04	0.04	0.03	0.05	0.04	0.03	0.05	0.05	0.04
NY	33	1.08	0.89	1.01	0.99	0.94	0.85	0.78	0.68	0.94	0.83	0.57	1.05	0.96	0.70
NC	34	3.55	3.22	3.73	3.65	3.46	3.04	2.78	2.43	3.47	3.04	2.02	3.85	3.53	2.50
OH	35	17.75	14.60	16.35	16.06	15.22	13.53	12.37	10.82	15.02	13.40	9.04	16.90	15.52	11.11
OK	37	41.88	35.88	46.52	48.68	48.04	45.23	41.35	36.18	42.39	42.14	30.05	43.09	49.01	37.13
OR	38	2.55	2.14	2.49	2.54	2.42	2.22	2.03	1.77	2.33	2.20	1.54	2.53	2.47	1.82
PA	39	11.51	8.93	10.16	9.63	9.23	8.31	7.59	6.65	9.47	8.23	5.61	10.50	9.42	6.82
RI	41	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.02	0.02	0.01
SC	42	2.23	1.99	2.31	2.26	2.14	1.87	1.71	1.50	2.16	1.89	1.24	2.39	2.18	1.53
TH	44	2.04	1.86	2.13	2.05	1.94	1.71	1.56	1.37	1.96	1.71	1.14	2.20	1.93	1.41
TX	45	424.80	368.35	435.55	433.09	416.10	377.23	344.90	301.78	403.27	367.71	253.99	450.25	424.51	309.68
UT	46	5.85	5.77	6.96	7.15	7.04	6.53	5.97	5.22	6.39	6.11	4.28	7.19	7.18	5.36
VA	48	3.49	3.19	3.63	3.53	3.34	2.94	2.69	2.35	3.39	2.93	1.93	3.75	3.41	2.41
WA	49	2.55	2.13	2.51	2.55	2.47	2.24	2.05	1.79	2.41	2.24	1.54	2.59	2.52	1.84
WV	50	8.41	6.20	7.33	7.32	7.01	6.22	5.69	4.97	6.77	6.15	4.11	7.59	7.15	5.11
WI	51	1.89	1.59	1.77	1.70	1.62	1.47	1.34	1.17	1.63	1.43	0.99	1.83	1.65	1.21
WY	52	10.93	8.48	10.02	10.34	9.92	8.84	8.08	7.07	9.70	9.11	6.16	10.36	10.12	7.26

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

AHL/ARAH/INDVOC 11/22/85

VOC CAT 97

	REFERENCE CASE								LOW CASE			HIGH CASE		
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
KO 26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NC 34	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.04	0.05
OR 33	0.10	0.12	0.12	0.12	0.13	0.15	0.16	0.17	0.10	0.11	0.14	0.12	0.14	0.19

VOC CAT 98

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VOC CAT 99

	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AZ 3	0.72	1.01	1.35	1.60	1.89	2.55	3.03	3.51	1.21	1.58	2.71	1.40	2.06	4.20
AR 4	0.03	0.09	0.12	0.15	0.17	0.22	0.26	0.30	0.11	0.14	0.24	0.13	0.18	0.35
CA 5	0.20	0.26	0.34	0.40	0.46	0.61	0.73	0.85	0.30	0.39	0.66	0.35	0.50	1.01
CO 6	0.01	0.01	0.02	0.02	0.02	0.03	0.04	0.04	0.01	0.02	0.03	0.02	0.03	0.05
DE 8	0.06	0.08	0.10	0.11	0.13	0.17	0.20	0.23	0.09	0.11	0.18	0.10	0.14	0.23
FL 10	0.07	0.10	0.13	0.16	0.18	0.24	0.29	0.33	0.12	0.15	0.26	0.14	0.20	0.40
GA 11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IN 15	0.41	0.43	0.61	0.70	0.79	1.02	1.22	1.41	0.54	0.67	1.10	0.63	0.86	1.69
IA 16	0.35	0.37	0.46	0.52	0.58	0.73	0.87	1.00	0.41	0.49	0.79	0.43	0.63	1.20
KS 17	0.04	0.05	0.07	0.08	0.09	0.12	0.15	0.17	0.05	0.08	0.13	0.07	0.10	0.20
KY 18	0.21	0.25	0.32	0.37	0.42	0.56	0.67	0.78	0.29	0.35	0.60	0.33	0.46	0.93
ME 20	0.02	0.03	0.04	0.04	0.05	0.06	0.08	0.09	0.03	0.04	0.07	0.04	0.05	0.11
MD 21	0.14	0.16	0.19	0.21	0.24	0.31	0.37	0.43	0.17	0.20	0.34	0.20	0.26	0.52
MA 22	0.10	0.12	0.16	0.19	0.21	0.28	0.33	0.39	0.14	0.18	0.30	0.16	0.23	0.46
MI 23	0.20	0.23	0.22	0.32	0.36	0.49	0.53	0.67	0.25	0.31	0.52	0.29	0.39	0.80
MO 26	0.16	0.19	0.23	0.27	0.30	0.38	0.45	0.53	0.21	0.25	0.41	0.24	0.33	0.63
MS 30	0.02	0.02	0.03	0.03	0.04	0.06	0.07	0.08	0.02	0.03	0.06	0.03	0.05	0.10
NJ 31	0.28	0.32	0.40	0.46	0.53	0.70	0.83	0.96	0.36	0.45	0.75	0.42	0.57	1.15
NY 32	0.04	0.05	0.07	0.09	0.10	0.14	0.17	0.20	0.07	0.09	0.15	0.03	0.11	0.24
NY 33	0.50	0.56	0.70	0.79	0.90	1.19	1.42	1.65	0.63	0.77	1.30	0.73	0.98	1.97
NC 34	0.67	0.82	1.05	1.20	1.35	1.74	2.07	2.40	0.95	1.15	1.86	1.10	1.47	2.23
ID 35	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.02	0.03	0.05	0.03	0.04	0.03
OH 36	0.95	1.06	1.31	1.50	1.69	2.20	2.62	3.03	1.17	1.44	2.37	1.37	1.84	3.63
OR 38	0.02	0.02	0.03	0.03	0.04	0.05	0.06	0.07	0.03	0.03	0.06	0.03	0.04	0.09
PA 39	0.24	0.25	0.31	0.35	0.40	0.52	0.62	0.72	0.28	0.34	0.57	0.33	0.43	0.85
RI 41	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
SD 43	0.04	0.05	0.06	0.07	0.08	0.10	0.12	0.14	0.06	0.07	0.12	0.07	0.09	0.17
TX 45	0.53	0.63	0.82	0.95	1.09	1.44	1.71	1.99	0.74	0.93	1.56	0.85	1.18	2.33
UT 46	0.05	0.07	0.09	0.11	0.13	0.17	0.20	0.23	0.08	0.10	0.18	0.09	0.14	0.28
VT 47	0.01	0.01	0.02	0.02	0.03	0.04	0.04	0.05	0.01	0.02	0.04	0.02	0.03	0.06
VA 48	0.23	0.34	0.43	0.43	0.55	0.70	0.84	0.97	0.39	0.46	0.75	0.45	0.60	1.16
WA 49	0.03	0.04	0.05	0.06	0.06	0.09	0.10	0.12	0.04	0.06	0.09	0.05	0.07	0.14

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10**3 TONS)

ANL/ARAI/INDVOC 11/22/85

VOC CAT 99

	WI	51	REFERENCE CASE							LOW CASE			HIGH CASE			
			1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
	WY	52	0.15	0.17	0.21	0.24	0.27	0.33	0.42	0.49	0.19	0.23	0.39	0.22	0.29	0.59
			0.02	0.02	0.03	0.04	0.04	0.05	0.06	0.07	0.03	0.04	0.03	0.03	0.04	0.09

VOC CAT 100

		1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL	1	0.21	0.25	0.33	0.38	0.43	0.57	0.68	0.78	0.30	0.37	0.61	0.34	0.47	0.94
AZ	3	0.94	1.30	1.74	2.05	2.44	3.29	3.92	4.54	1.55	2.04	3.50	1.81	2.65	5.43
AR	4	0.03	0.03	0.04	0.05	0.06	0.07	0.09	0.10	0.04	0.05	0.03	0.04	0.06	0.12
CA	5	0.71	0.89	1.16	1.36	1.59	2.12	2.52	2.92	1.04	1.35	2.29	1.21	1.73	3.49
CO	6	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.00	0.01	0.01
FL	10	0.03	0.04	0.05	0.06	0.07	0.09	0.11	0.13	0.05	0.06	0.10	0.05	0.08	0.15
GA	11	1.07	1.32	1.66	1.83	2.12	2.70	3.22	3.73	1.51	1.80	2.59	1.73	2.30	4.46
IN	15	0.50	0.53	0.73	0.84	0.95	1.24	1.47	1.70	0.65	0.81	1.33	0.76	1.04	2.04
KS	17	0.07	0.03	0.10	0.12	0.14	0.19	0.22	0.26	0.09	0.12	0.20	0.10	0.15	0.31
KY	18	0.17	0.19	0.26	0.28	0.32	0.43	0.51	0.59	0.22	0.27	0.46	0.25	0.35	0.70
ME	20	0.05	0.05	0.07	0.09	0.10	0.13	0.16	0.18	0.07	0.03	0.14	0.03	0.11	0.22
MD	21	0.23	0.26	0.31	0.34	0.39	0.51	0.61	0.71	0.28	0.35	0.56	0.32	0.43	0.85
MA	22	0.07	0.08	0.11	0.13	0.15	0.20	0.24	0.28	0.10	0.13	0.21	0.12	0.16	0.33
MI	23	0.13	0.16	0.18	0.21	0.24	0.32	0.39	0.45	0.16	0.20	0.35	0.19	0.26	0.53
MS	25	0.10	0.12	0.15	0.19	0.21	0.28	0.33	0.38	0.15	0.18	0.30	0.17	0.23	0.46
MO	26	0.11	0.14	0.17	0.19	0.22	0.28	0.33	0.38	0.15	0.18	0.30	0.18	0.23	0.46
MT	27	0.02	0.02	0.02	0.03	0.03	0.04	0.05	0.06	0.02	0.03	0.05	0.02	0.03	0.07
MI	32	0.02	0.02	0.03	0.04	0.05	0.05	0.08	0.09	0.03	0.04	0.07	0.03	0.05	0.10
NY	33	0.71	0.78	0.93	1.11	1.27	1.67	1.99	2.31	0.83	1.08	1.82	1.02	1.38	2.76
NC	34	0.63	0.76	0.97	1.10	1.25	1.61	1.91	2.22	0.87	1.06	1.72	1.01	1.36	2.65
OH	35	1.25	1.37	1.69	1.93	2.18	2.84	3.38	3.92	1.51	1.86	3.06	1.76	2.37	4.69
OR	38	0.03	0.09	0.11	0.13	0.15	0.20	0.24	0.27	0.10	0.13	0.22	0.11	0.16	0.33
RI	41	0.06	0.07	0.08	0.10	0.11	0.12	0.15	0.17	0.07	0.09	0.13	0.09	0.12	0.20
SC	42	0.12	0.14	0.18	0.21	0.23	0.30	0.35	0.41	0.17	0.20	0.32	0.19	0.26	0.50
TN	44	0.07	0.09	0.11	0.13	0.14	0.19	0.22	0.26	0.10	0.12	0.20	0.12	0.16	0.31
TX	45	0.33	0.38	0.50	0.53	0.66	0.83	1.05	1.22	0.45	0.57	0.96	0.52	0.72	1.46
VA	48	0.01	0.04	0.06	0.06	0.07	0.09	0.11	0.13	0.05	0.06	0.10	0.06	0.08	0.15
WA	49	0.13	0.15	0.19	0.22	0.26	0.34	0.41	0.48	0.18	0.23	0.38	0.20	0.28	0.57
WV	50	0.02	0.02	0.02	0.03	0.03	0.04	0.05	0.06	0.02	0.03	0.04	0.03	0.04	0.07
HI	51	0.24	0.27	0.33	0.37	0.42	0.56	0.66	0.77	0.30	0.36	0.61	0.34	0.46	0.92

VOC CAT 101

		1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030
AL	1	80.41	100.30	131.56	151.25	172.78	226.28	269.34	312.16	119.25	147.35	241.70	137.09	187.99	373.55
AZ	3	24.92	35.58	47.63	56.41	66.86	89.85	106.95	123.95	42.75	55.89	95.44	49.63	72.75	148.33
AR	4	65.54	81.97	109.10	128.29	145.99	183.88	224.82	260.55	98.61	125.95	206.56	113.68	158.84	311.80
CA	5	426.53	548.05	720.80	845.94	983.97	1307.88	1556.71	1804.19	645.30	834.55	1413.10	751.04	1070.60	2159.02

STATE-LEVEL PROJECTIONS OF UNCONTROLLED INDUSTRIAL VOC EMISSIONS BY SOURCE CATEGORY (10⁶*3 TONS)

ANL/ARAH/INDVOC 11/22/85

VOC CAT 101

	REFERENCE CASE								LOW CASE			HIGH CASE			
	1980	1985	1990	1995	2000	2010	2020	2030	1990	2000	2030	1990	2000	2030	
CO	6	36.39	48.80	65.87	79.48	95.06	132.89	155.17	183.32	58.99	80.28	143.19	68.63	103.43	219.37
CT	7	100.32	117.66	150.57	178.23	209.44	280.44	333.79	386.86	131.96	171.89	292.72	156.83	228.44	462.94
DE	8	12.92	15.88	19.80	23.13	26.50	34.22	40.73	47.21	18.05	22.97	37.43	20.63	28.83	56.49
DC	9	5.18	6.00	7.49	8.60	9.79	12.94	15.41	17.86	7.08	8.99	15.14	7.81	10.65	21.37
FL	10	111.62	155.56	208.81	249.07	290.18	355.33	453.64	531.56	187.90	246.50	416.96	217.57	315.71	636.09
GA	11	121.01	154.69	194.76	220.30	248.65	316.14	376.28	436.11	177.27	211.66	336.24	202.92	270.53	521.87
ID	13	12.39	15.64	20.52	24.01	27.09	34.53	41.10	47.64	19.23	23.91	38.74	21.35	29.47	57.00
IL	14	256.77	256.37	320.35	361.22	409.37	531.71	632.85	733.50	283.96	342.15	561.15	333.80	445.42	877.73
IN	15	172.96	206.25	259.23	299.34	338.98	436.39	519.41	601.99	232.49	287.56	469.01	270.11	363.83	720.39
IA	16	68.78	73.43	91.21	102.53	114.29	144.31	171.77	199.09	82.21	97.83	157.08	95.04	124.35	238.23
KS	17	39.67	46.02	59.71	70.97	82.17	112.02	133.33	154.53	53.33	69.79	120.41	62.22	89.40	184.92
KY	18	50.48	58.77	75.97	87.81	101.32	134.66	160.23	185.76	68.46	86.08	144.51	79.16	110.24	222.28
LA	19	39.96	42.17	54.64	63.28	71.95	94.23	112.17	130.00	49.80	62.54	102.89	56.93	78.29	155.56
ME	20	21.32	25.84	33.96	39.47	45.52	60.31	71.79	83.20	30.21	38.02	63.51	35.39	49.52	99.55
MD	21	65.09	74.31	89.45	99.73	113.92	148.75	177.05	205.21	81.14	97.53	161.89	93.20	123.95	245.56
MA	22	160.85	193.74	256.64	307.05	349.98	459.32	546.71	633.64	226.20	291.24	490.01	267.41	380.78	758.25
MI	23	261.24	316.15	374.80	425.80	499.23	654.82	779.44	903.34	333.37	413.07	699.23	390.55	532.35	1000.98
MN	24	92.94	118.89	154.47	181.31	205.90	230.87	334.31	357.46	139.03	178.41	305.15	160.95	227.30	463.66
MS	25	57.93	71.19	93.17	107.18	121.18	157.58	187.55	217.38	83.55	101.84	167.57	97.08	131.86	260.12
MO	26	130.32	160.99	200.63	226.62	255.59	325.91	387.91	449.59	180.76	217.12	343.91	209.07	278.09	533.00
MT	27	5.03	5.55	7.22	8.43	9.65	12.51	14.89	17.25	6.73	8.45	13.87	7.52	10.50	20.64
NE	28	18.82	22.37	28.35	32.65	36.95	47.39	56.41	65.33	25.75	31.78	51.77	29.54	40.20	78.23
NV	29	2.89	3.92	5.24	6.25	7.37	10.07	11.99	13.90	4.74	6.27	10.84	5.46	8.02	16.63
NH	30	27.44	35.74	49.30	60.42	74.27	105.51	125.58	145.55	43.31	60.92	109.83	51.37	80.81	174.17
NJ	31	200.27	236.20	293.76	337.96	385.76	510.07	607.12	703.63	266.40	331.09	551.04	306.09	420.81	842.02
NM	32	8.52	11.43	15.32	18.33	21.52	29.37	34.96	40.51	13.78	18.09	31.12	15.96	23.41	43.48
NY	33	351.82	401.42	502.57	569.94	649.31	855.69	1018.51	1180.41	451.56	553.20	929.25	523.64	706.45	1412.54
NC	34	134.85	168.76	216.05	245.17	277.67	355.75	424.62	492.13	195.23	235.63	330.45	225.11	302.10	583.90
ND	35	4.19	5.35	6.82	7.77	8.85	11.46	13.64	15.81	6.13	7.61	12.57	7.10	9.63	18.92
OH	36	334.15	379.23	469.02	535.31	606.12	786.09	935.63	1084.39	419.26	514.93	815.47	483.70	659.48	1297.65
OK	37	43.23	51.18	73.27	89.07	105.05	144.33	171.79	199.10	64.95	88.89	154.26	76.35	114.32	235.25
OR	38	42.68	49.33	63.54	75.13	85.83	114.48	136.27	157.93	59.11	75.30	128.09	66.21	93.38	188.99
PA	39	295.17	316.27	397.09	439.27	501.11	657.69	782.84	907.29	360.02	430.59	714.37	413.74	545.20	1085.72
RI	41	37.39	43.50	55.17	63.50	69.92	81.04	96.46	111.79	48.14	56.52	82.74	57.48	76.07	133.77
SC	42	70.02	84.53	103.45	123.24	139.29	177.50	211.27	244.87	93.50	118.83	189.98	113.00	151.55	293.02
SD	43	6.54	8.98	11.29	12.87	14.63	18.84	22.43	25.99	10.33	12.61	20.73	11.76	15.92	31.10
TN	44	87.53	109.94	139.03	155.98	176.21	226.83	269.99	312.91	125.01	149.53	242.32	144.85	191.72	374.45
TX	45	222.38	266.19	347.48	401.40	461.05	609.71	725.73	841.10	313.05	392.89	650.46	362.07	501.63	1005.51
UT	46	17.56	23.91	31.85	38.02	44.76	60.55	72.07	83.53	28.46	37.46	63.93	33.19	48.70	99.95
VT	47	8.19	9.98	14.11	17.60	21.20	29.92	35.61	41.27	12.34	17.45	31.49	14.70	23.07	49.35
VA	48	80.63	101.87	127.78	144.32	163.45	209.54	249.41	289.06	116.01	133.16	221.72	133.15	177.84	345.90
WA	49	55.63	61.76	80.53	94.91	110.03	145.65	173.36	200.92	75.09	96.19	161.08	83.91	119.72	240.44
WV	50	21.77	22.13	28.95	33.54	33.37	49.63	59.13	68.53	25.99	32.48	52.81	30.18	41.74	82.00
HI	51	115.26	133.49	164.61	183.35	203.83	275.95	328.45	380.68	147.34	178.25	299.66	171.52	227.28	455.53
WY	52	1.10	1.17	1.53	1.84	2.11	2.74	3.26	3.78	1.44	1.87	3.07	1.60	2.29	4.52

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